anxp NH 467

HE-PRACTICAL 10.23 HOTOGRAPHER

EDITED BY REV. F. C.L'AMBERT. MA. SUMMER NUMBER 23.



The Pictorial Work of F. J. Mortimer, F.R.P.S.

> Introduction to the use of an inexpensive

Hand Camera at the Seaside. The Editor.

Marine Photography.
F. J. Mortimer.

River Photography.
Harry Selby, R. W. Cole.

Camera on Board Ship. John Everard.

Lakeland Photography.

Frederick Graves, A. Walker.

Harbour Photography.

Harry Wanless.

Sea Shore Photography. J. H. Crabtree.

Canal-Side Photography.

A. M. Clarke.

40 Illustrations.

HODDER AND STOUGHTON 27. PATERNOSTER ROW. E.C.

August 1905

The

Eastman Plate. RAPID EXTRA

RAPID AND EXTRA-RAPID.

A NEW DRY PLATE WITH

KODAK QUALITY

Unequalled for Latitude, Speed, Fine Grain,

Freedom from Fog, Uniformity,

Reliability, and Ease of Manipulation.

OF ALL DEALERS, and

KODAK, LTD.,

57, 59 & 61, Clerkenwell Road, LONDON, E.C.

BRANCHES-

96, Bold Street, LIVERPOOL; 72-74, Buchanan Street, Glasgow; 59, Brompton Road, S.W.; 60, Cheapside, E.C.; 115, Oxford Street, W.; 171-173, Regent Street, W.; and 40, Strand, London, W.C.

FOR THE HOLIDAYS



LIGHT, PORTABLE, UNBREAKABLE.

EMPRESS SPECIAL RAPID RAPID ISOCHROM MONARCH and (to order only) CHROMATIC.

and to order only, office of the control of the con

Used exactly in the same way as the corresponding ILFORD Plates.

Prices per dozen.			Empress. Special Rapid. Chromatic.				Rapid Isochrom. MONARCH.				
$3_{2}^{1} imes$	2_{2}^{1}		 / 1s.	Od.			1s.	6d.			
$4_{4}^{1} imes$	3_{4}^{1}		 1s.	6d.			2s.	Od.			
5 ×	4		 2s.	6d.			3s.	Od.			
$6rac{1}{2} imes$	$4\frac{3}{4}$		 3s.	8d.			4s.	6d.			
$8_{2}^{1} imes$	6^{1}_{2}		 . 6s.	6d.			8s.	Od.			
10 ×	8		 10s.	Od.			12s.	Od.			

And in all sizes English and Continental. Films for Export should be specially packed.

OF ALL DEALERS

Sole Makers, ILFORD, Limited, ILFORD, LONDON, E.

The Practical Photographer.

Library Series. Special Summer Number. No. 23.

	Principal	Cont	ent	S.				PAG	TES.
The	Pictorial Work of F. J. Mon	rtimer.	with	an	Ess	a v	by T	he.	×110
	Editor. (Eight Illustrations)	-	-	-	-	-	~ J	-	1
Intr	roduction to Pictorial Seaside P	hotogra	nhv	with	an I	nes	nens	ive	
	Hand Comore The Editor	_					_	-	6
Pho	tography of the Sea. F. J. Mobour Photography. Harry Wa	rtimer						_	18
Hor	hour Photography Hamy W.	anlose	_	-	-	-	-	-	30
Pho	bour Photography. Harry Wategraphy of Objects on the Bear er Photography. Harry Selby	anicas ich L	H (Tra hi	ree			_	32
Pix	on Photography Harry Solby	ш, э,	11. (Jian	1166	-	-	-	36
Dir	on Photography P. W. Colo	D V	-	-	-	-	-	-	41
The	Compress on Pound Ship Tohn	Excess	ā	-	-	_	-	-	43
Con	tography of Objects on the Berer Photography. Harry Selby er Photography. R. W. Cole, Camera on Board Ship. John al-Side Photography. A. M. Cotography of the Scottish Lakes eland Photography. A. Walk ts on Photographing Waterfall es on Some of the Illustrations	gordro	·u	-	-	-	-	-	47
DL.	an-side Fhotography. A. M. C	тагке	-	-	-	-	-	-	50
Pho	tography of the Scottish Lakes	-	-	-	-	-	-	-	
Lak	eland Photography. A. Walk	er -	- T2	- ,	-	-	-	-	
Hin	ts on Photographing Waterfall	ls. G.	А. г	OWK	e^{s}	-	-	-	55
Not	es on Some of the Illustrations	-	-	-	-	-	-	-	56
3700	Illustr	ations	2				OT310	DAG	7.77.0
NOS	"The Wave." F. J. Mor					FA	CING	PAC	
1.	((T T) . T) . 1)	timei.	-	-	-	-	-	-	1
2.	"In Fine Frenzy." ,,		-	-	-	-	-	-	4
3.	"A Burst of Spray." ,,		-	-	-	-	-	-	5
4.	"The Squall."		-	-	-	-	-	-	8
5.	"The Squall." "Breakers among Rocks.",		-	-	-	-	-	-	9
6.	The Reel. ,,		-	-	-	-		-	12
7.	"Tempest." ,,		-	-	-	-		-	13
8.	"A Wind Sea."	M M M	-		-	-	-	-	16
9.	"On the North-East Coast." "The Lighthouse." Harry W "A Study of Reflections." C. "The Thames at Isleworth."	J. J. Ru	ıther	ford	-	-	-	-	17
10.	"The Lighthouse." Harry W	anless	-	-	-	-	-	-	20
11.	"A Study of Reflections." C.	E. Wa	$_{ m nless}$	3 -	-	-	-	-	21
12.	"The Thames at Isleworth."	Harry	\mathbf{Selb}	у-	-	-	-	-	24
13.	"On the Sligachan River."	,,		-	-	-	-	-	24
14.	"Loch Lomond." F. Graves -	-	-	-	-	-	-	-	25
15.	"Killin." G, Warnkess	-	-	-	-	-	-	-	25
16.	"Thomason Foss." G. A. For	wkes	-	-	-	_	-	-	28
17.	"Mill Ghyll Foss," Harry Se	lbv -	-		-	_	-	-	28
18.	"Down from the Hills." S. T.	'vinms	-	-	_	-	_	-	28
19.	"A Sparkling Waterfall." B.	Schon	_	-	~_	_	_	-	28
20.	"A Shady Pool," F. C. Lamb	ert-	_	-	_	_	-	_	32
$\frac{20.}{21.}$	"The Thames at Isleworth." "On the Sligachan River." "Loch Lomond." F. Graves- "Killin." G, Warnkess- "Thomason Foss." G. A. Fov "Mill Ghyll Foss." Harry Se "Down from the Hills." S. T "A Sparkling Waterfall." B. "A Shady Pool." F. C. Lamb "The End of the Breakwater." "The Canal Boat." E. H. Atl	" C. B.	Ale	xand	er	_	_	_	
22.	"The Canal Boat." E. H. Atl	kin -	_	_	-	_	_	-	36
23.	"Drying Her Sails" 24 "S	unset in	the	Harl	mm	"	FC	L.	40
2 5.	"A Hozy Evening" 26 "S	umset iii	Sun	lown	,,,		1.0.		41
27.	"A Hoayy Load" A M Clar	elza	- un	AO W L			,,		44
28.	"Entoring Pont" W Foston	Bricha	m	-	-	-	_	_	45
	"Entering Fort. W. Foster	Drigna	111	-	-	-	-	-	48
29.	"On the Cam. "	. U. L.	-	-	-	-	-	-	$\frac{10}{49}$
30.	"The End of Rydar water.	,,	-	-	-	-	-	-	52
31.	"The Dimpling Ocean."	,, ',' TD 7	- (1	- 11	-	-	-	-	$\frac{52}{53}$
32 .	"A Busy Corner of the Docks.	. K. N	1arsi	пап	-	~	-	-	- 93 Ee
33.	"Gather ye Rosebuds while ye	e may."	ь.	U. L		-	-	-	56
34.	"The End of the Breakwater." "The Canal Boat." E. H. Ati "Drying Her Sails." 24. "S "A Hazy Evening." 26. "S "A Heavy Load." A. M. Clai "Entering Port." W. Foster "On the Cam." "The End of Rydal Water." "The Dimpling Ocean." "A Busy Corner of the Docks. "Gather ye Rosebuds while ye "On Derwent Water" "The Canal Bridge." 36. " O. Apparatus for and Specime		,	,,	3.5	-	, -	-	57
35.	"The Canal Bridge." 36.	'The Lo	ock."	A.	M. (Uļa	rke	-	60
37-4									
	J. H. Crabtree								

Valle -

Editorial and other Notes.

THE PRACTICAL PHOTOGRAPHER'S ANNUAL-DICTIONARY is now ready.

Our next two numbers will be more or less companion volumes and will deal with all those vastly important matters which convert negatives into **Pictures fit for Exhibition**, such, for instance, as **Combination Printing**, combining clouds with landscape, adding figures, combining two or more negatives to yield one picture, **Local treatment** of the negative and print, **Control of Printing**, etc.

For the worker who wants to advance his position these two volumes will probably prove the most valuable in his photographic library.

Other numbers now in active preparation will deal with Copying. Night Photography. Flashlight Work. Photographic Curiosities (Ghosts, Doubles, etc.). Ozotype. Telephotography. Iron Printing. Oil Printing. Minor Printing Processes. Lenses. Photographic Optics. Chemistry for Photographers. Photo-micrography. Stereoscopy. Optical Lantern. Trichromatic Photography. Finishing the Print. Pictorial Composition (second part). Gaslight Papers. Portraiture (second part), etc.

The Editor will be glad to consider suggestions regarding subjects or topics which any reader thinks might desirably be added to the foregoing list.

N.B.—Will readers who feel disposed to co-operate in the preparation of any of the above numbers kindly communicate with the Editor forthwith?

The Editor is always willing to give careful consideration to Short $Practical\ Notes$ on any of the subjects in preparation.

All matter published is paid for at one uniform rate.

Criticism of Prints.

It is our desire to make the criticism of prints a special feature in our pages. The Editor gives his personal careful attention to this matter, and aims at making every criticism a practical, interesting, and instructive object-lesson. By paying attention to the hints thus given, often a poor print may be improved and a good print followed by one still better. In order to encourage readers to take great care in the preparation of the prints they send us, we offer Fifteen Shillings in Prizes for the best three, four, five, or six prints sent in each month. The winning prints will not be returned. (See Coupon).

Print Criticism. Awards:

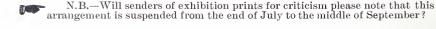
Again we note that some new workers are slowly forging ahead and at the same time the general level of excellence is rising all along the line. The following are adjudged to be the first six and take the awards this time:—F. H. Cliffe, "Retrochoir, Winchester"; C. B. Alexander, "Landing Mackerel"; J. Johnson, "Ditton"; E. S. Maples, "By Medway's Banks"; F. A. Tinker, "Swiss Shepherd Boy"; O. W. F. Thomas, "Entrance to the Crypt, Wingfield Manor." The following were the next six competitors and are all very highly commended:—B. Schon, J. R. Richardson, J. J. Rothwell, W. H. Mack, J. R. Sandilands, Miss D. Sandford.

General Notices.

- 1. It is particularly requested that any errors in the spelling of Award Winners' names should be notified to the Editor immediately they are observed.
- 2. Will contributors to our various competitions kindly refrain from sending under one eover prints for different competitions? This not only gives us considerable trouble, but involves the risk of the various pictures not being properly entered for the competition for which they are intended. It is far better for all concerned to send each lot of prints in separate parcels.
- 3. Will competitors please notice that the latest date for receiving prints for our competitions is that given on the coupon, and that we cannot admit late arrivals?
- 4. Will competitors please bear in mind (1) that the judging and criticism cannot be done until after the closing date of the competition, (2) that we go to press before the 25th of the month, and (3) that the criticism of a large number of prints takes considerable time?
- 5. In response to numerous requests from our correspondents we have pleasure to announce that we will do our best as far as space permits to reply to queries of a photographic nature. Will querists please (1) write plainly, (2) on one side of the paper, (3) as briefly as is consistent with clearness, and (4) give us the indulgence of their kind patience? (Vide Coupon).

Pictures for Exhibitions.

6. To meet the convenience of those readers who are preparing prints for special dates (exhibitions, etc.), and cannot conveniently wait for printed criticism in our columns, we have arranged that readers may send us one, two or three prints with the usual Print Criticism Coupon and a fee of one shilling for each print sent. Within a week the prints, accompanied by a criticism, will be returned to the sender. The return postage must be prepaid in the usual way as in Rule 5 (vide Coupon). The fee must be sent with a letter (marked "Print Criticism Special") and coupon to the Editor, and not enclosed with the prints. Each print must bear on the back the name and address of the sender.



Floral Competition.

This competition proved one of the most popular of all since the inauguration of the present series, and the general average quality of work is decidedly better than we expected. Consequently the competition was very keen in the last two rounds. Two competitors transgressed our rules by sending more than three prints, and with much regret we were obliged to disqualify them in fairness to all the others who observed our regulations.

Awards.

Silver Plaque. - E. Seymour, "A Study in Texture."

Bronze Plaque,-Dan Dunlop, "A Bunch of Grapes."

Certificates.—S. G. Kimber, "Riverside Reeds": P. R. Dunham, "Lilac"; Geo. Brown, "Lily of the Valley."

The following are all **Highly Commended:**—M. W. Jones, E. H. Hooper, A. L. Mackinson, B. L. Jackson, O. W. F. Thomas, F. A. Dent, J. S. Guthrie, G. Gorton, H. P. Wight, M. H. Brown, G. W. Timbrell, A. E. Burnet, Miss Chichester.



This Coupon Expires August 31st, 1905.

THE PRACTICAL PHOTOGRAPHER. COUPON No. 50.

Prints for Criticism (or Queries). RULES.

1. Write legibly, on one side of the paper only.

2. Put your name, address, and a number on the back of each print, and enclose this coupon.

3. Do not send more than three prints with one coupon.
4. State the Month, Hour, Light, Plate Speed, Stop, Exposure, Developer, Printing and Toning process employed.

5. If prints are to be returned, a stamped and addressed label or envelope must be sent with the prints.

6. The Editor reserves the right of reproducing any print

sent in for criticism.

7. Prints should be addressed:—The Editor of The Practical Photographer (Print Criticism), 27, PATERNOSTER ROW, LONDON, E.C.



THE PRACTICAL PHOTOGRAPHER.

Coupon No. 51.

Marine, River, Lake, etc., Competition.

Name

Address

WRITE LEGIBLY.

This Coupon Expires October 31st, 1905.

Marine, River, Lake, etc., Competition.

A Silver, and Bronze Plaque, and Certificates will be placed at the disposal of the Judges.

This Competition is designed to include pictures in which water is shown as an essential part of the composition, e.g., waves, seaside, river, lakes, waterfalls, fountains, canals, etc.

The Competitor may submit one, two or three (but not more) prints.

Each print must bear on the back of the mount the title, name and 3. address of the producer, and full details as to date, plate, stop, exposure of the negative, and printing process.

Marks will be given for Technical and Pictorial quality. mounting and titling will also be taken into account.

The Editor reserves the right to reproduce any prints sent in to this competition.

The Winning Prints will not be returned. Others will be returned, together with a brief criticism, if a stamped and addressed envelope or label be sent with the prints.

7. Prints must reach us not later than October 31st, 1905, addressed:-

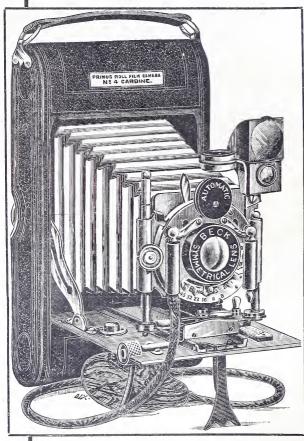
> The Editor of The Practical Photographer (Marine Competition),

> > 27, Paternoster Row, London, E.C.

THE 'PRIMUS' ROLL FILM CAMERAS.

The No. 4 'Carbine

ADAPTED FOR PLATES AS WELL AS ROLL FILMS.



Patent Infinity Catch.

Patent Focussing Scale.

Quarter

Plate.

Patent Spool Holders.

Flush Back.

PRICE, Complete-

CE, Complete—	Ask	to	See	it.
With Beck Symmetrical Lens	£3	12	6	
With Dr. Lieber Anastigmat	4	4	0	
With Aldis Anastigmat, Series II., f/6				
With Goerz Syntor Anastigmat, f/6.8				
With Ross Homocentric, Service, Series III., f/6.3				
With Goerz Anastigmat, Series III., f/6.8	9	2	6	

W. BUTCHER & SONS,

Camera House, FARRINGDON AV., LONDON, E.C. SUPPLIED BY ALL DEALERS.

Digitized by the Internet Archive in 2016



Library Series.

No. 23.

The Pictorial Work of F. J. Mortimer, F.R.P.S.



R. F. J. MORTIMER is probably well known to every reader of these pages as a photographic specialist in matters marine, in the sense that his pictures of the sea, in its many moods of storm and calm, occupy a place in the front rank of pictorial photography.

Like so many others who were born within sound of the storm waves, he has always been

attracted by the sea and ships.

Having won a small camera as a prize in a sketching competition some ten years ago, the possibilities of using photography as a valuable means of annotating passing events and effects, or recording forms and arrangements engaged his attention. This first camera was shortly replaced by a larger one—partly home-made—and then photography was tackled in determined earnest. Now followed several years of steady reading and study, accompanied by the photography of flowers, architecture, portraits, landscape and, of course, the sea and shipping, so that he has a large and varied collection of negatives. Flashlight work is another branch of work that has had a good deal of attention at his hands. In this way he wisely laid a good broad technical foundation, which stood him in good stead when some three or four years ago he began to limit himself to, or specialise in, marine

work, with what rapid success those who have visited any of our leading exhibitions during the

last few years will hardly need telling.

Inheriting some of the artistic ability of his grandfather, who was a water-colourist of no little ability, young Mortimer took to sketching and painting as a boy, and in due course obtained various prizes in the Portsmouth branch of the South Kensington Art Schools. To this must be added a good deal of work for the illustrated papers, designing book covers, posters and other pictorial work in oil and water colour. Love and Art the course does not always run smoothly, and our young friend did not receive much home encouragement, for it was designed for him to become a prosaic, dry-as-dust lawyer, and to this end were educational matters shaped. But rough hew things as we may, parents do not always get their way, and Mortimer ere long forsook "Act this and cap. that" for the more congenial occupation of photographic journalism, permitting of the exercise of the camera in the direction which has so well justified his choice.

In matters of poetry, music, fiction and painting his tastes are as catholic as were his earlier photo-

graphic studies.

He is a strong believer in concentration of effect by careful selection and arrangement of the subject before the exposure is made, rather than the placing of much reliance on after-treatment. does not think photography is ever likely to be a real rival of painting, even if photography in natural colours becomes an easily accomplished procedure, although it certainly can produce results worthy to rank in a high position among the graphic arts. But he has little or no sympathy with the elaboration of brush-work in connection with the photographic print, and would prefer to have brush-work pure and simple without any use of the camera at all. In his own words he adequately sums up the matter thus: "If it is sought to make photographic pictures by methods beyond the limits of straightforward photography, I fancy that progress in good photography is being retarded, and the more hand-work that is employed

THE PICTORIAL WORK OF F. J. MORTIMER, F.R.P.S.

the less chance photography has of ever being recognised as a fine art by artists and others

qualified to judge."

He only admits three forms of control as legitimate, viz.: "(1) Printing in clouds from a second negative. (2) Printing on rough paper to subdue detail and aid luminosity. (3) Strengthening or reducing a light or shade on the negative or during printing, but not on the print, to correct the falsities of a non-orthochromatic plate."

He has given much attention to carbon and bromide printing, and in the latter method can obtain quite a variety of cool sepias and olive colours by modifying exposure and developer only. For large carbon work he makes an enlarged

positive and then a contact negative.

He rightly holds that specialisation should be prefaced by a broad generalisation in matters technical as well as pictorial, and he thinks it is undesirable that workers should be allowed to send the same two or three pictures year after year to go the round of the exhibitions, but he would permit the results of one season's work to be sent to as many exhibitions during that season as the worker pleases. For the present medals or their equivalent are needful to attract good work to provincial shows, but he is of opinion that the co-operation among provincial societies might be vastly improved.

The following notes will prove of interest and service to those who may be tempted to follow in his footsteps:—

- Fig. 1. "The Wave."—The aftermath of a storm taken on a fairly bright morning at the end of February when this huge Atlantic roller, some 20 feet high, broke in on a shallow with the wind blowing off shore. The author has admirably caught the moment when one can in imagination again hear the rush-h-h of the water and see the spindrift or water-dust blown away from the wavecrest. The whole picture seems alive with movement in every part.
- Fig. 2. "In Fine Frenzy." Probably this will prove the first favourite with some of our readers. We

are reminded of the farmer whose favourite kind of weather was the kind he was *not* having at the time. But with regard to Mr. Mortimer's pictures each one becomes our favourite as it comes before us.

- Fig. 3. "A Burst of Spray."—Another Atlantic roller hurling itself in full force against the shoreconfining rocks, and rebounding some 20 or 30 feet high as a cloud-mass of broken water—a very world of spray. Truly a dangerous place, calling for a cool head, a firm foot and a stout heart. The reader will not be surprised to learn that Mr. Mortimer has had more than one camera snatched out of his hands by the angry waves and has had several very narrow shaves of being upset and knocked senseless. But the sea-loving Briton was ever a sportsman, enjoying a spice of danger in his pleasures.
- Fig. 4. "The Squall."—Now peeps forth Apollo, the god of light, calling to his fleeting messenger Hermes, to mount his wind chariot and summons Æolus and his family for some games upon the waters this bright afternoon in February. But Nimbus, the storm-cloud, comes along in company with Notus who dwells in the south-west, and the face of Poseidon becomes angry.
- Fig. 5. "Breakers among Rocks." Perhaps there is in the realm of nature nothing so impressive as a long, iron-bound cliff line of coast, against which is hurled again and again the onset of an angry wave, which, with its mighty thud-d-d, seems to shake the very foundations of the earth at our feet. This powerful picture seems to recall some such scene as depicted this January day, when the winds, water and rocks seem all at war with each other.
- Fig. 6. "The Reef" gives us the effect of a storm from the sea which had been raging for some days—and went on for some days longer—dashing the angry waves against the half hidden reef-bank. The time was on a dull afternoon in February, when "earth and heaven, sky and sea" seemed almost blended into one mysterious unity.
- Fig. 7. "Tempest." Despite the old jokes about those who see the wind, it would seem that here we have a scene which enables us to get as near to

In Fine Frenzy.

F. J. Mortimer.



Burst

THE PICTORIAL WORK OF F. J. MORTIMER, F.R.P.S.

seeing the wind as is likely. This is a fine example of tempest-tossed water, a world of spray and foam.

"A Wind Sea."—This shows us the phase Fig. 8. of the sea on a sunny afternoon in March, when a stiff and steady breeze is blowing and a good sea is up. In this case it would seem that Poseidon is in his playful mood as he gallops his horse after Aphrodite in her foam-girt garden.

Our readers will agree with us that we have again been favoured by the fates in being able to include such a charming and instructive selection of sea pictures in this number of The Practical Photographer. And we feel quite sure that every possessor of this number will wish to add his grateful thanks to our own for Mr. Mortimer's kindness in placing this engaging selection of his pictures at our service and for his helpful notes on the subject that he has studied with so much pictorial taste and technical skill.

Postscriptum.—By the kindness of Mr. Mortimer we are able to give below a synoptic statement of the technical side of these eight poetic pictures:—

Fig. 1.—"The Wave." Feb., bright morning. Fig. 2.—"In Fine Frenzy. March, bright afternoon. Fig. 3.—"A Burst of Spray." Jan., sunny. Fig. 4.—"The Squall." Feb., bright forenoon, gale.

Fig. 5.—"Breakers among Rocks." Jan., dull, rain, storm. Fig. 6.—"The Reef."

Feb., dull, stormy.
Fig. 7.—"Tempest."
Dec., dull, high wind.
Fig. 8.—"A Wind Sea."

March, sunny afternoon.

Plate Speed, 200 H. and D.

Stop, f/11 or f/16.

Exposures, varying from $\frac{1}{80}$ to $\frac{1}{150}$ sec.



Introduction to Pictorial Seaside Photography.

By THE EDITOR.

[A chapter specially written for the guidance of inexperienced workers desiring to make pictures with inexpensive apparatus.]



AD workmen blame their tools" is only another way of saying that the quality of the work which any apparatus will produce, very largely depends on the user of the apparatus. It is certainly the case in photography that those who possess the most costly apparatus do not always turn out the most pictorial photographs.

Good Work with Cheap Cameras.

"How to get the utmost value out of a cheap camera" may be taken as the text of this discourse. And at the outset it may be said that

with a camera costing something under fifty shillings, used with care and thought, it is possible to produce pictures which will hold their own in any photographic exhibition.

The Essence of the Matter.

The gist of the whole problem can be put into a sentence, viz., that for the greater part of pictorial photo-

graphy the refinements of a costly apparatus are not essential. If you want to drive a wire nail into a packing case it matters very little whether you use a steel-faced electro-plated hammer with polished mahogany handle costing half a guinea, or an ordinary carpenter's hammer costing a shilling, provided you use the right amount of force at the right place (and do not hit your fingers). other and special work the more costly tool may at times have the advantage. Similarly a moderately cheap modern camera will serve the pictorial photographer's purpose in the great majority of cases quite as well as a more costly outfit. But of course there are times when the high-class instrument has the advantage.

This to a very large extent consists The Secret of in knowing what our camera will Success. and will not do, and then passing by the few and exceptional cases which require any special adjustments which our camera may not happen to possess. But, at the sea side, where the light is more photographically active than it is inland, the number of subjects that will have to be left out of court is really exceedingly small. The great thing is to know how to use a simple instrument so as to get the utmost value out of it. person with a pocket knife, patience and observation, may produce a vastly finer piece of carving than another one equipped with a costly array of tools but without the knowledge or skill to use them.

The first thing is to understand exactly what our camera will and will not do. We must go somewhat fully into this question, as all else depends upon this matter being made quite clear in our mind. This will require the exercise of some little patience and thought, and the expenditure of a few plates in making—let us say a dozen—test experiments. But we can assure the reader that the shilling invested in a box of plates for these experiments ought to prove one of the best investments he ever made, and should save its expenditure many many times over.

We shall assume that our reader has already got a camera of some sort, has made a *few* experiments with it, and is willing to be advised as to how to

put it to its best use.

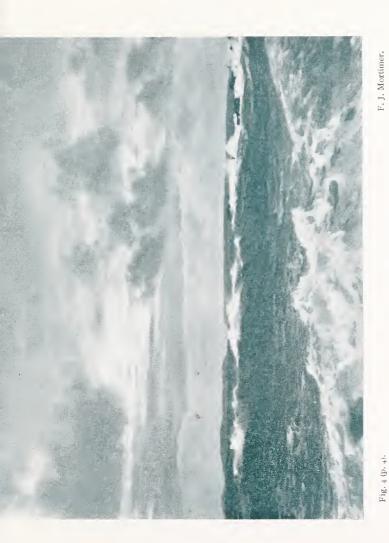
Learn your Camera.

By this is meant that the position and action of every part should be quietly studied. The reader should know the reason and use of every screw, joint, etc. Next he should learn to put his finger on this or that screw, knob, lever, etc., with quickness and certainty without looking at his fingers. For instance, while the camera is held in the hand and the attention is given to some object at the other side of the street, he should be able—instantly—to set or discharge the shutter, change the lens diaphragm, change a plate or film, etc., without looking at the camera or his fingers. For hand-

camera work this is essential. For stand-camera work it is vastly helpful. The various movements should be practised first while the eyes are looking at some object other than the camera, and then with eyes closed, for it often happens that a pictorial subject presents itself and passes away so quickly that half a second may make all the difference between being ready and securing an effect, or not being ready and missing it. For example, boats coming in and out of a harbour, fishermen hauling a net or sail, children grouped on the sands, a gleam of sunlight catching the sails of a vessel, etc.

If good work is to be done with Learning to the hand camera, the worker must Aim. learn to take a fairly correct aim at his subject without looking at the finder. first this may sound rather a "tall order," but with a very little practice he will be surprised to find that it can be accomplished. The way to learn it is to walk about a large room or garden. Fix the eyes on some definite object, such as a small picture on the wall of the room, or branch of a tree in the garden, and aim the camera at this selected object. Then examine the finder to see what sort of an aim has been made, being careful, of course, not to move the camera as the eye is transferred from the target to the finder. Very probably the worker will find he is liable, just at first, to aim rather above than directly at the object.

Judging the Angle of View. Having learned to get a certain selected object in the centre of the finder while looking at the object and not the finder, our next lesson is to learn to say at a glance exactly how much subject we can include from a certain standpoint. This we may learn in a similar way. Taking up our position at any point, we ask ourselves the question, "If I include that tree on the right, shall I include this shrub on the left?" The question is then referred to the finder, which will tell us if our guess was a fairly good one. But this assumes that our finder is correct. This we must verify by experiment.



TME SQUMBE.



For this purpose we may conveniently take a negative of some fairly well-defined objects which occupy the margins of the finder. Such, for instance, would be a view of the houses on the opposite side of the street. (In this case it is well to use a window about half-way up the house). The camera should rest on a table drawn close up to the window. A written note should be made as to the limits of the picture as shown by the finder, Also, note should be made as to what occupies the exact centre of the finder, so that the camera may subsequently be exactly replaced.

A small stop should be used, and slow shutter exposure given. The negative is developed and printed in the usual way. On comparing the print with the view shown by the finder when the camera is put in its original position again, we can see how far the finder agrees with the angle of

view included by the lens.

Assuming that the camera is of the Angle of View. Angle of view. focussing kind—i.e., not a fixed focus camera—we must bear in mind that as the distance between the lens and plate varies according to circumstances, so the angle of view will vary; i.e., the nearer the lens is to the plate the wider the angle, but the view angle of the finder is a fixed quantity, and therefore cannot be true for more than one distance between lens and plate. It is therefore most convenient to have the finder view angle correspond with the angle given by the lens when the lens is adjusted for distant objects—i.e., the widest angle, so that all other positions of the lens will be included in that one. If the finder includes too much picture, we may conveniently blot out the excess by covering the margins with a little black varnish, waterproof ink, or black paper pasted on to the glass.

The Focus
Question.

This is a matter of considerable importance, and on this topic there is a good deal of misapprehension.

The beginner is apt to think that the sharper the picture is, the better it is. For some few scientific purposes extreme sharpness is an advantage, but for general pictorial purposes it is quite as

likely to be a disadvantage as an advantage, consequently it is of importance for the pictorialist to know how to control this sharpness to meet his requirements.

Should the camera be one of the

Fixed Focus fixed focus kind the most important Camera. thing for its owner to know is how near he may be to an object without that object being objectionably out of focus. By far the easiest and best way to answer that question is to take a negative and from it make a print. But we must be careful in taking this negative to mark our position so that we may return to it again; secondly, to select a suitable test subject. For this we require a number of well-defined objects at different dis-Such, for instance, as a row of posts and rails, a straight road with buildings along one or both sides, or a long garden with a number of small and easily distinguished plants, flower pots, or other objects at different distances.

The object selected and position marked, a negative is made with the largest stop. The resulting print is now taken to the view point, and we note that all objects beyond—let us say a shrub, 30 feet away—are in sufficiently sharp focus for pictorial A memorandum of this is made in the purposes. pocket note-book. Other negatives are taken with each of the other stops, and the distance of the nearest sufficiently sharply defined measured and duly entered in the pocket book. We shall learn that the smaller the stop the nearer we may be to a certain object without its being put out of pictorial focus. Thus, for instance, we may observe that with a certain stop we may not have any part of our picture nearer than 20 feet, but with the next larger stop we must not go nearer than 30 feet and so on. It will now be a help to remember these facts and also to acquire the art of judging these distances at a glance; so that we may mentally say to ourselves "with the stop now in use I must not go nearer than that rock, this boat, etc."

Focusing Camera.

In this case the circumstances are somewhat different. We may profitably make the following exFirst select some well-defined object,

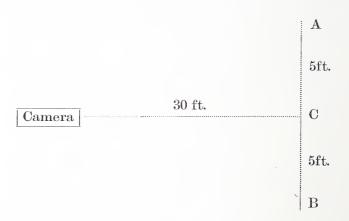
such as a shrub or gatepost, at 15ft. distance, and set the focusing scale for this distance. Now with the largest stop, say f/8, we take a negative, and then change the stop to f/16 and take a second negative. Supposing our lens to have an equivalent focal length of $5\frac{1}{2}$ inches, we shall see that the f/8negative gives us objects in fairly sharp definition up to about 10 feet from the camera, and to 30 feet away from the camera, but our f/16 negative gives us objects sufficiently sharp up to about 8 feet from the camera, and as far away as 300 feet away from us. In other words, with f/8 our range or depth of focal field is from 10 to 30 feet, and with f/16, it is from 8 to 300 feet. These figures, of course, only apply to a $5\frac{1}{2}$ inch lens which is adjusted for an The focal field would be object I5 feet away. different if we used a lens of different focal length, or if we altered our focussing scale.

The foregoing is given in order to exemplify the principle of the matter. The reader is referred to page 98 of the *Practical Photographer's Annual-Dictionary*, where is given a set of three tables for lenses of $5, 5\frac{1}{2}$ and 6 inch equivalent focal length. When the reader has ascertained the equivalent focal length of his lens, he should then copy out the table corresponding to it, and paste it to the bottom of his hand camera, if that is of the box form, or carry it in the pocket book. (It is convenient to use waterproof ink for writing this table if it is to be fixed to the camera). As the full explanation and application of these extremely useful tables is given on page 99 of the *Annual-Dictionary*, it need

Focal Length. It is desirable for several reasons to know the equivalent focal length of the lens that is used. We may assume that it will be somewhere between $4\frac{1}{2}$ and 6 inches. The following method is quite simple and practical. First select a straight wall or paling, not less than 10 feet long. Measure a portion of this (AB) exactly 10 feet in length and at each end, A and B, fix vertically a strip of white paper—cut from the edge of a newspaper—about 2 feet long and about an inch or so wide. Exactly midway between A and B fix a somewhat larger piece of white paper, C.

not be repeated here.

Then exactly opposite C and 30 feet away put the camera on a table or some other convenient support and arrange matters so that the image C comes as near as may be in the centre of the finder. (The strips A and B will probably be too small to be seen on the finder.) If the camera has a focussing adjustment set the focussing scale for 30 feet. Use a small stop and expose a plate, and arrange the camera so that the longer side of the plate is horizontal. When the negative is developed and dried we must now carefully measure the distance between the two black lines corresponding to the strips A and B.



We need no calculation whatever, for we may for all practical purposes take the equivalent length of the lens as three times the distance between the two fine black lines (A and B) on the negative. Thus for a 6-inch lens, the lines on the negative will be just 2 inches apart. For a 5-inch lens they will be $1\frac{2}{3}$ inches apart, and so on.

Stops. In some of the cheaper forms of cameras the stops are marked 1, 2, 3, etc., instead of the far better plan f/8, f/16, and so on. Should they not be marked in the latter and better way, their f/value may easily be ascertained by the method given on page 73 of The Practical Photographer's Annual-Dictionary.

The Meet.

Shutter
Speeds.

As a matter of fact, it is the exception rather than the rule to find the shutter speeds quite accurately marked in even the more costly forms of cameras.

If the camera has a focusing scale set it to 30

feet, or the nearest to that on the scale.

But provided the errors are not very great, this inaccuracy is of little consequence for the pictorial worker, provided that he knows what his shutter will and will not do for him in actual practice, and the best way to ascertain this is to make a few

trial exposures in the following manner.

Supposing the lens stops are ascertained to be f/8, f/11, f/16 and f/22, and that the shutter speeds are marked $\frac{1}{10}$, $\frac{1}{25}$, $\frac{1}{50}$ and $\frac{1}{100}$ sec. Select some convenient position where people are quietly walking along at a distance from the camera not nearer than 20 yards, and so arrange matters that the light is to the right or left, and not behind or in front of the camera.

Expose the first plate with f/8 and $\frac{1}{100}$ sec., the second plate with f/11 and $\frac{1}{50}$ sec., the third with f/16 and $\frac{1}{25}$ sec., and the fourth plate with f/22 and $\frac{1}{10}$ sec.

The first three plates are having theoretically equivalent exposures, and if developed together should only differ in degrees of definition. The fourth plate should show an exposure rather greater than the other three. An experiment of this kind will tell us if the markings of the shutter speeds are relatively fairly correct, and also at the same time give some idea of the slowest of the speeds possible with walking figures.

Pictorial Hints. We are now ready to turn to the consideration of pictorial matters. One need hardly say that the same general principles apply to the making of seaside as to any other kind of pictorial composition, and it matters nothing whether the camera cost twenty shillings or twenty pounds, provided always, as the lawyers say, that we do not attempt to make the particular camera we are using do something for which it is not suited. For example, suppose our camera is fitted with a lens of small aperture, say f/11 at largest, and that the shutter's quickest exposure is $\frac{1}{10}$ th second.

Then under those conditions we are not likely to get very satisfactory pictures of breaking waves in

a dull light.

But as the limitations inherent to cameras of moderate price only apply to exceptional rather than general circumstances, all we need do is (1), learn the limitations of the camera; (2), do not try to outstep them in practice. The foregoing considerations and experiments should have taught the reader what his camera will not do in respect to depth of focal field, use of stops, speed of shutter and so on, so that we may now attempt to apply this knowledge.

Judging Distances.

No doubt the reader has already practised judging distances in the streets or country lanes. But let him not forget that a large, level, open space, like a flat sandy or shingly sea beach is very apt to make him under-estimate distance as compared with equal distances in the street, or garden. He should therefore revise and verify his guesses once or twice and measure them by pacing.

Every one knows that distances over water look much shorter than the same distances over land. Take half a dozen small stones of the same size. Throw the first as far as you can along the beach. Then throw the next into the sea, and so on alternately. Compare with eye these (probably

approximately equal) distances.

Probably the commonest fault of Avoid seaside photography is the ten-Overcrowding. dency to include far too many figures and objects. One boat will come better than half a dozen; one or two figures will come far better than a dozen. The general open character of seaside work makes us forget the small scale of our figures on the negative. Human beings which are three or four hundred yards away are so clearly seen by us that we forget that they will appear as only tiny dolls on our negative. The comparative novelty of the surroundings, as compared to the daily familiar streets and shops, tempt us to include in one picture material enough to make half a dozen. The clearness of the air upsets our judgment of distances. The brightness of the colours

of the water, etc., fascinates us, and makes us forget our results will come in monochrome.

Avoid Great Contrasts. Strongly marked contrasts of light and shade are exceedingly difficult to manage satisfactorily. For instance, the black hull of a wreck on the shore may require one second exposure, and the breaking glittering waves close round it only require perhaps $\frac{1}{50}$ second. Hence one or other has to be sacrificed. Moderate contrast is, as a rule, far more pictorial than absence of contrast or very

strongly marked contrast.

Also avoid great contrasts of distance. For example, a donkey of quite normal size ten feet away from your camera will come out a perfect mammoth of an animal compared with similar donkeys that are perhaps 100 yards away. But if your nearest animal is twenty yards away and the more distant ones, say, fifty yards away, the difference of size will seem far more natural. This matter (of different distances) is of special importance in seaside work, as it is so easy to be deceived in judging distances.

Avoid Lininess. Sea-shore subjects are very apt to be "liney." We have the sea horizon line and the shore line often nearly straight. The lines of waves are often approximately parallel in calm weather. The groins set up to catch the sand and shingle. The railings along the parade, and, perhaps worst of all, the terribly unpictorial, liney abominations known as piers. It would take the genius of a Whistler and Turner combined to make a pictorial photograph of a pier. After no little experience in seeing uncountable failures, we advise our readers to make it a rule to omit the pier from all his pictorial attempts.

Disconnectedness.

This lies at the root of a very large proportion of seaside compositions. We so seldom have a united group.

We so often have a bewildering number of scattered people, singly or in twos and threes. Therefore, if on picture-making bent, the first and best step is to turn one's back on the favourite part of the place and seek subjects where one is likely to find—let us say—a couple of men mending a boat or net,

one or two children fishing, Darby and Joan reading the newspaper, a man with horse and cart hauling shingle, etc. Similarly, if photographing boats, aim either at a single vessel, or a group of two or possibly three. But be watchful to avoid two vessels in similar positions or at the same distance from the camera unless they are close together.

The inexperienced worker should High v. Low be very careful to note the differ-View Point. ence resulting from a high and a low view point. This he can do by carefully observing the two views in the finder. By a low point, we might instance the effect of photographing a group of people on the shore, when the camera is held by someone also standing on the shore, or about the same level as the figures. By a high view-point we mean, for example, the taking of these same figures when we are standing on a sea wall, pier, etc., so that our feet are somewhat above the level of the heads of our figures. No hard and fast rules should be made in pictorial work, but in very general terms it may be said that a high view point is very seldom as satisfactory as a low view point. We draw notice to this matter because the inexperienced worker seems particularly prone to select such an elevated position as a pier or sea-wall for his standpoint, and this unwise course accounts for quite a large proportion of his pictorial failures along the shore. It should be noted that the further we are away from our subject, the higher we may be without spoiling the picture by a high view point. Roughly speaking, if our figures are 10 yards away, our camera may be a foot or so above the level of the sitters' heads. If we are dealing with boats, rocks, etc., 100 yards away, we may be ten feet above sea-level, and yet not produce a disagreeable effect.

Figure Studies. The neighbourhood of the seasily shore is particularly suited for figure work. The light is strong and therefore more rapid exposures may be made here than inland. The boatmen and fisherfolk, as a rule, move about in a leisurely manner, and so can be more easily caught just at the happy moment, and also in many places they still wear their useful work-a-day

H WIRD SEH.

F. J. Mortimer.

Fig. 9 (p. 56).

On the North-East Coast.

J. J. Rutherford.

clothes, which are vastly more pictorial than the reach-me-down-ready-made goods of the towns. The boats, nets, fishing and sailing gear are nearly always capable of pictorial treatment.

The following general maxims are worth bearing

in mind:—

(1) Do not try to see how many figures you can "get in" but how few you can employ for your picture. Until considerable practice has been gained it is well to limit oneself to three as a maximum, and preference should be given to two figures or a single figure.

(2) The figures should look the part. The modern half-dandyfied looking boatman, with white collar

and billycock hat, may be passed over.

(3) As a rule old people and quite young children are less conscious than youths and middle-aged people.

(4) Try to catch your figures doing something—it matters little what that something is provided they are *not* staring at the camera, and that they do not know they are being photographed. It requires a well-trained experienced professional model to look as if he did not know that he was being photographed.

(5) Do not attempt to get too near your figures or the result will very probably show distortion. We advise 30 feet as the limit for full-length figures, and 50 feet will be a better distance with

quarter-plate hand cameras.

The figure worker must learn to use his camera in all sorts of positions, e.g., held under his arm with the lens pointing towards his back, etc., so as not to attract the attention of the figures to himself or his camera.

(6) Avoid getting any part of the camera, lens,

etc. (outside or inside) wet with spray.

(7) Be equally careful to guard against sand blowing into any of the working parts of the camera.

(8) Dust the inside of the camera (getting well into the corners) with a bit of soft rag with one or two (not more) drops of glycerine to make it lick up the dust.

(9) Be careful when loading or unloading the

sheaths not to bend them.

(10) Develop a trial plate now and again.

Photography of the Sea.

By F. J. MORTIMER, F.R.P.S.

HE following notes on photography of the sea will deal more particularly with those phases of the work wherein the ocean is photographed from the shore or rocks, thus affording more scope for practical application than "deep-sea" photography. Shipping studies, harbour

scenes, and quay-side pictures will not be touched upon, as they may conveniently be regarded as an entirely separate branch of marine photography.

As far as possible, therefore, suggestions and hints for the achievement of successful wave photography will be considered. The subject with which we have to deal, and the methods whereby its portrayal can be accomplished will be discussed.

The sea, especially in its angry Moods of the moods, is probably as different from Sea. other subjects capable of representation by the camera as strenuous warfare is unlike a garden party. "Hand-camera work of a remarkably high and specialized character "more or less adequately describes it. Photography of stormy seas on rocky coasts is thus placed at a distinct disadvantage when compared with landscape, architectural, portrait, or still-life work. these the operator has time to consider and compose his subject. The wave photographer, on the contrary, has little time to think of the æsthetic qualities of the composition, as, in most cases, his mind must be made up in a flash, and the possibilities of the picture grasped and made the most of almost instantaneously with the release of the shutter. Marine photographs of this type, there, fore, are frequently little more than a literal transcript of opportunities taken advantage of, rather than definite or deliberate arrangements of pictorial material imbued with the personality of the photographer. It depends largely on the individuality of the photographer whether

final product is a picture that excites the imagination, or merely amounts to a bare record of fact

that may or may not please the beholder.

That photography of the sea can, however, be presented at times in a highly pictorial form is indisputable. The atmospheric conditions that surround the subject are often very helpful for the attainment of that end. Rare combinations of sea, rocks and cloud forms occur that, if watched for by the practised eye, will, in the resultant straightforward print, give a picture that leaves little to be desired in the way of composition or tonality.

In the hands of the worker who favours the gumbichromate printing process the "personal touch" may extend the possibilities of wave photography to even satisfy the most advanced advocate of

individual impressionism.

It is assumed that everyone who essays wave photography has already a fairly sound general knowledge of photographic procedure in the field,

and knows how to use a hand camera.

This is essential, as slippery rocks and stormbeaten shores are not the best places in the world to learn the rudiments of the practical use of a camera, neither are drenching showers of spray and unruly winds conducive to successful exposure calculations and other details that frequently have to be accomplished almost instinctively.

There are many parts of the Suitable English coast where fine studies of Localities. breaking waves can be obtained at certain times of the year. From October to April may be regarded as the "big wave season," and the chief point to be considered when selecting a working base for the purpose is undoubtedly the amount of exposure which that particular part of the coast offers to the open sea and prevailing The south and south-west coasts are winds. particularly favoured by Father Neptune when in his more boisterous moods, although the mighty swell of the Atlantic ocean will be found to create an entirely different type of roller from that found on the east coast, in fact almost every coast shows differences in the forms of waves. On those shores where low ebb tides expose miles of sand, as on the

coast of Holland, in the Solway Firth, and various seaside places on the south coast of England, on the advance of the flood tide, backed by a strong breeze, the water is broken for the whole extent. and the parts that were dry at low water are distinctly marked by surf. Whereas, on coasts where the water meets with no opposition until it reaches the near rocks or beach, as at Deal or Dover, or the coast of Cornwall and the south-west and west coast of Ireland, there is no broken water till the shore is reached. Fine seas are also to be seen in the districts round Cromer and Scarborough, and surf studies are to be obtained at various points on the Isle of Wight. Waves breaking over reefs are also distinctive of certain localities.

Study the Waves.

Before attempting wave photography, a certain amount of confidence will be gained by carefully

studying the sea action and the locality generally. On windless sunny days a strong ground sea will often give excellent pictures without the attendant discomforts of a storm, but it will usually be found that far finer results from the pictorial standpoint are obtained—in a subject where realism takes a front place—on dark lowering days when the elements are apparently endeavouring to impress the puny mortal with a sense of their majesty.

If the moving masses of water are observed for a time the character of each succeeding wave as it advances and rends itself among the rocks can be estimated and to a certain extent foretold. experience thus gained will be useful when the actual exposure is about to be made. There is no doubt that an extra big wave recurs at more or less regular intervals and affords some foundation for the popular belief that every ninth wave is bigger than its fellows. An appreciation of this fact will serve to subdue any inclination on the part of the photographer, to be careless or unwatchful. The big wave has an unexpected precipitancy that is apt to be somewhat disconcerting, and unless a sharp look-out is kept, a half-drowned photographer is unlikely to continue operations with that calmness necessary for sound pictorial work.



Fig. 10 (p. 57).

Harry Wanless.



Fig. 11 (p. 57).

C. E. Wanless.

H SWUDY OF REFRECTIONS.

It will usually be found, however, that if there is a cross current, or if the rocks against which the waves are dashing are on a jutting headland, the rollers occur first from one direction and then from another, a point or two to the right or left. They approach the rocks and break alternately, and it will be noticed that those from, say, the right, gain a trifle in point of time on those from the left; and the extra big breaker—the one we are waiting for-happens when these two advancing volumes of water meet and break simultaneously. A note of warning is here necessary; never take up a position on a desirable spot—even though presents the most likely point of vantage for pictures, when the tide is rising—unless an absolutely reliable and easy line of retreat is assured or distaster is courted.

As regards the actual moment of When to exposure, it will be found that Expose. in every wave form, when it strikes amongst rocks, there is an instant when the whirling mass of water is at its maximum height, and remains stationary, suspended in mid-air. is but a brief instant indeed, but that is the moment the exposure should be made. It may occur just before it strikes the obstacle, or just after, but it will usually be found that if this instant is watched for, and the exposure then made, far finer results will be obtained than if the shutter is released at any other time. Of course, it is not often that only one wave-form is in the composition at a time. There may be, and usually are, several; but one will, or ought to, predominate, and this is the one to watch. The shutter speed should be regulated to make the most of the others, and also of the flying spray. If the waves are in the form of rollers, not breakers, and it is desired to photograph them before they reach the rocks, the conditions that govern ordinary instantaneous photography of moving objects will apply, bearing in mind, however, that here too, there is usually a moment when the roller appears at its best for pictorial purposes, and this should be seized. Experience and practice will be the best guides for teaching just when that moment happens. In other words

it is necessary to have repeatedly seen and observed similar scenes to be able to judge fairly correctly just how an advancing wave will behave, and how its passage over the shallows or rocks will affect its shape, and hasten or retard the moment of breaking. A careful study, too, of pictures of breaking waves and rollers will assist the photographer in choosing his moment of exposure, as he will then be more

likely to know what to wait for.

The ideal camera for the work The Camera. should be of box form. If a small size is used it can also be a magazine camera. should be quite waterproof, and with no projections beyond the shutter release, focusing screw and view finder. For further protection it should be cased in a waterproof cover. Until one has actually experienced a season or two on a stormy coast, in the midst of flying spray and salt water, it is difficult to realize the amount of injury that will befall exposed metal work, wood and leather under such conditions. Brass work will be soon lost in a thick coating of green crystallization that appears to rot the metal. Aluminium crumbles away like dry putty; steel and iron are in equally hopeless case. Hence the precautions advised, and if an ordinary form of camera is used a waterproof case of oilskin or rubber should always be employed, and no effort should be spared immediately on returning from a day among the breakers to repair the evil wrought by the salt air and moisture. All metal, wood and leather should be well cleaned and wiped with an oily rag; vaseline should be well rubbed into the bellows and on the brass work. Special attention should also be paid to the careful cleaning of the optical parts of the lens. Use for this purpose the softest possible rag, free from grit or oil, and just damped with spirit. See also that no salt water has insinuated itself into the lens mount via the diaphragm. If it has it will make itself apparent in the shape of a fine crystalline deposit inside the lens tube.

Shutters. The camera should be fitted with two shutters. One, a simple exposure shutter in front of the lens and intended to protect it and uncover it when the actual

exposure is made by the second: i.e., a focal plane shutter. The front shutter can be of almost any type that gives time exposures. Possibly the ordinary time and instantaneous roller blind shutter will serve the purpose as well as any other, and in addition may occasionally be used as an instantaneous shutter. The foreground type of shutter will be found useful when it is desired to include dark rock in the foreground and good cloud effects in the sky on the same plate. But for general all round efficiency the focal plane shutter worked at a moderate speed will be found to answer best for wave photography.

Shutter Speed.

If this shutter is worked at too great a tension, the waves appear in the finished picture to be frozen, and the surf and foam resemble a solid snowdrift. About $\frac{1}{200}$ of a second will be found the maximum speed necessary for any wave picture, and a much longer exposure may usually be given if the idea of motion is wanted. Exposures as long as $\frac{1}{15}$ of a second can sometimes be given with good results, and such an exposure, combined with watchfulness for the right moment, will give a much truer rendering of the subject than indiscriminate high speed snap-shotting.

Focussing. The reflex form of hand camera is not of much use for this work, owing to the fact that the lens has to be uncovered

during the whole process of focussing.

This is, of course, impossible in the presence of flying spray, as the lens would promptly be put out of action by the film of salt water on its outer surface. For the same reason, any form of focusing on the ground glass, with the ordinary camera, is usually impossible. It is, therefore, necessary to have a reliable focusing scale or distance meter on the camera, and to depend on this. Composing the picture can occasionally be attempted on the ground glass in the rare instances where a tripod can be employed, by placing a thin piece of glass over the front shutter by means of elastic bands. A lantern slide cover glass will serve the purpose, and can be repeatedly wiped without injury. Focusing should not be attempted through this glass, but it will be

found at times very useful for arranging the composition, and for fine focussing it can be removed for an instant, during a lull, to enable one

to steal a peep at the focusing screen.

Metal Shutters. Metal shutters of the diaphragmatic type are quite useless for the work. Not only is the lens left uncovered, which for reasons given above is to be avoided at all costs, except at the instant of exposure, but the fact that such shutters are all metal is decidedly against them. A short exposure to the prevailing moisture and salt in the atmosphere will suffice to ruin the working parts, and render them quite unfit for use.

Much work with the tripod is ob-Tripod Work. viously impossible. The shore, be it rock or beach, is usually of such a character that the adjustment of the three legs is a matter of difficulty and it is not so easy to follow the incoming rollers when the camera is attached to the tripod, nor is it so easy to beat a hasty retreat, thus encumbered, when the rollers take it on themselves to follow the photographer. Better therefore leave the tripod at home and rely on the use of the camera held in the hand. To facilitate this, stout strap handles should be attached to each side of Both front and back shutters should have pneumatic or other reliable releases that can be operated from the back.

The direct vision type of finder will Finder. prove most useful generally. As so much depends on the accuracy of this part of the equipment special care should be exercised in fitting it to the camera. It should be detachable, so that it can be fixed on outside the waterproof cover. The best form is one with no glass parts. A simple wire frame of relatively correct proportion to the plate used is the ideal finder. This wire frame should have fine wire cross-pieces fixed so as to divide the view into quarters, and it should be hinged to a flat plate so that it can be folded down out of the way. At the near end of the plate a hinged sighting pin is necessary, as in the ordinary glass direct vision view finder, and the whole can be attached by key-hole slots to the top of the camera in such a position that when the back of



Fig. 12 (p. 57).

THE THAMES AT ISLEWORTH.

Harry Selby.



Fig. 13 (p. 58).

ON THE SLIGACHAN RIVER.

Harry Selby.



Fig. 14 (p. 58)

косн комохо.

F. Graves.



Fig. 15 (p. 58).

KILLIN.

G. Warnkess.

the camera is held close to the face so that the eye can look clearly above the top and through the finder, the view framed in the finder being the same as that given by the lens on the ground glass or plate. This, of course, can be arranged beforehand by testing on an ordinary view with the camera on a tripod. A great deal of confidence is thus given when sighting the seascape through the finder, and the knowledge that just what is seen therein will be on the negative is more helpful to good composition of a subject that is constantly altering its form, than when one of the small and frequently unreliable finders is employed.

The lens is a part of the wave The Lens. photographer's outfit that must also receive careful attention. It will be found that the light is usually so actinic in all seascape photography that a lens working at a large aperture is unnecessary. Nevertheless, as good an instrument as can be afforded should be obtained. Occasionally, i.e., on very dark, stormy days, the modern anastigmat working at a large aperture and covering well will be the only type of lens capable of doing the subject justice. In most other cases, however, any good R.R. lens will serve, as it can generally be stopped down to f/11 or f/16, or even smaller for ordinary full exposures, and at these apertures will give all the fine definition required.

Telephotography.

Telephotography will find very little scope in rough weather for wave photographs, and unless under exceptional circumstances, when the camera can be placed in shelter on a tripod, it should not be attempted.

Focal Length of Lens.

The lens should, nevertheless, be of fairly long focal length for all kinds of marine photography. The reason for this is clear. Most of the subjects attempted will not be very near the photographer, and the long-focus lens will give a better rendering in any case. For example, a 7-inch lens for a quarter-plate camera, and a 10-inch one for half-plate can be recommended. It is not desirable

to use a camera larger than half-plate size or it becomes too bulky and cumbersome, especially in box form.

Plate Holders. Dark slides are more generally reliable than any other form of plate holder, although if a small camera is used a magazine changing box for twelve plates will not be too heavy an attachment. The dark slide, however, offers the advantage, as it enables the bulk of the plates to be left in a place of safety out of the immediate reach of the waves, so that if an accident occurs whereby the camera is damaged, only the plates in the dark slide will suffer. Moreover, the certainty and comparative ease with which dark slides can be employed are greatly in their favour.

Briefly, then, the modus operandi Procedure. when "in the field" is this: The camera, swathed in its waterproof cover, is held by one of the side straps, preferably the left hand. The dark slide is in position and the plate un-The focal-plane shutter is set to, say, 1-100th sec. and the front shutter is set to "time." The release of the latter is held in the right hand, and the pneumatic bulb of the release of the focalplane shutter is conveniently held between the teeth. A position has been secured whence the incoming breakers can be observed in as much comfort and safety as possible. The wave forms are watched through the finder as they advance, and it will soon be gauged what is likely to make the best form of composition, taking into consideration the extent to which the surf and spray from the breaking wave will extend, and also the amount of dark rocks visible when the rollers sweep over them. The front shutter may often be opened and closed half a dozen times, and yet the back shutter remain unopened, because at the very instant of breaking—when the exposure would be made—it has been seen that just the right conformation of water, rock, spray and sky is not This is where the eye, quick to grasp the possibilities of a pictorial composition, scores. first attempts will usually result in letting go the back shutter (by smartly biting the pneumatic

bulb) as soon as the front shutter is open, and retreating expeditiously to avoid being swamped. The older hand will, provided no extreme danger is anticipated, stand his ground and wait the incoming of the next roller, which will probably give a better picture. The entire operation of exposing the lens and then the plate and finally covering the lens ought not, after practice, to occupy more than a full second. If the front shutter is allowed to remain open longer than this, its object is defeated, as the lens will soon be coverd with small drops of salt spray. When the plates in the dark slide are exposed, the spot where the remainder are placed is visited and the scene surveyed afresh prior to another attempt.

Costume. The costume that will be necessary in these rough and tumble bouts with wind and water must receive careful attention. Needless to say, any clothes that are likely to be spoiled by wet should not be worn. Oilskins, sou'wester and sea boots form the best outfit that can be recommended for the work, if it is being

undertaken seriously.

A short oilskin coat to button up close under the chin, oilskin trousers and either leather or rubber sea boots to reach to the knees, afford an outfit convenient for getting about quickly. The trousers should come over the boots and (if appearances are not studied) they can be tied round the ankles with either string or elastic, as occasionally when an incoming wave leaves the photographer waist deep in water, he will be astonished to find the amount of water sea-boots will hold. The necessity for covering the tops is therefore manifest. A sou'wester will also serve a like purpose in keeping the water from going down the back of the neck.

Companion Desirable.

On very rough days a companion and a stout rope will be welcome accessories, the rope to be tied round the waist and the other end held at a safe distance by the companion. Not only will the usefulness of this assistance be demonstrated when an inrush of water has carried the photographer off his feet, but even when scrambling down rocks to the water level, the knowledge that should a slip

occur the rope and companion will do their duty inspires a considerable amount of confidence.

The question of exposure and light Plates. has already been touched upon, so the other principal factor to consider is the plate. For most marine work, neither fast nor orthochromatic plates are needed. The whole subject, both sky and ocean, teems with light, and the brief exposure necessary for the water generally allows all cloud forms present to be registered and not lost in subsequent development. Orthochromatic plates, without a screen, offer very little advantage over non-ortho plates, and if a screen is used, overcorrection is often the result. The sky will appear very dark and the foam very white. As in most instances this is already the case, there is no necessity to emphasise it, unless unreal theatrical effects are aimed at. Orthochromatic plates and a screen are an advantage when there are many dark-green rocks in the picture. A general levelling up of tones then takes place, and a more harmonious representation results.

Typical Exposure. For general work, therefore, when the rocks are well illuminated and there is plenty of light, a medium-speed plate, about 200 H and D, stop f/16, and $\frac{1}{100}$ second exposure should give a fully exposed plate and a good rendering of the scene if the right moment for exposure has been watched for, as previously mentioned.

Halation. Plates should always be backed for this work. The intense whiteness of foam and spray in good light is very apt to give halation, especially if in juxtaposition with dark rocks.

Development. Development of these exposures calls for considerable care, and here again it is assumed that a knowledge of the technique of ordinary development has already been acquired.

A fairly thin negative full of detail, and if dark rocks are present, very little contrast should be aimed at. Under ordinary circumstances a negative of this type will be easily obtained, as the plate will usually be fully exposed. When, how-



G. A. Fowkes.

Fig. 16 (p. 59).

Fig. 19 (р. 60).

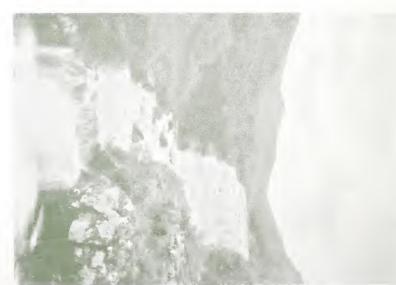
В. Schon.

В. Schon.



Fig. 18 (p. 59).

DOWN FROM THE PILLS.



S. Tymms.

ever, there is much contrast in the shape of dark sky, white foam and green or brown rocks, the plate should be developed in a very dilute developer strong in alkali. Stand development gives satisfactory results, and the following formulæ will be found reliable.

FORMULA I.	
Adurol	$\frac{1}{2}$ oz.
Hot water	$10 \mathrm{ozs}$.
Sodium sulphite	4 ozs.
Potassium carbonate	3 ozs.

For use take one part of this concentrated solution and add ten parts of water. For stand development add thirty parts of water.

	FORMULA 2.	
A.	Hydrokinone	160 grains.
	Sodium sulphite	2 ozs.
	Warm water	20 ozs.
В.	Metol	130 grains.
	Sodium sulphite	3 ozs.
	Warm water	20 ozs.
C.	Carbonate of soda (washing soda)	3 ozs.
	Water	20.028

Mix equal parts of each and dilute with an equal volume of water, or for stand development add 20

parts of water.

If under-exposure is suspected, this developer should be made up with half the quantity of A. If over-exposure is apparent use double the quantity of A, and add 10 to 20 drops of a 10 per cent. solution of bromide of potassium. This developer acts quickly even when fairly dilute, and should always be used if possible at a temperature of 60° to 65° Fahr. It gives negatives of good printing value and by suiting its different constituents to the exposure, almost any variation of defective exposure can be compensated for. The hydrokinone and carbonate of soda alone, with the addition of bromide, tend to give hard negatives, while the metol and carbonate alone, without bromide, give soft negatives.

Local development can be employed with effect in many of the subjects depicted by the wave photographer. The application of concentrated developer to the parts that require bringing up, and warm air conducted through a rubber tube from the ruby lamp, will also be found efficacious.

Harbour Photography.

By HARRY WANLESS.

ANY photographers will drift somewhere near the seaside during the next few weeks, intent on gratifying their favourite pastime, and as there will surely be some thousands of plates exposed, the following remarks are offered to help, if possible, the would-

be artistic worker to make the most of his oppor-

It will readily be granted that the harbours round our coast teem with pictures, as proved by a glance round our great exhibitions. No branch of pictorial work is easy. There are always difficulties to be overcome by the camera man, who cannot, like his brother the artist, either erase or add anything to the scene. He is fairly well bound to include everything that happens to be there, good and bad. harbour work similar conditions, if anything even more aggravatingly apparent, are met with at every Ropes often cross the view like so many barriers; ferry boats are invariably in the way; but the greatest evil of all is the "other" visitor. or party of trippers. These persons do not intend to spoil our picture, but they unconsciously mar many of the good things we were going to take.

Harbour work becomes not so much a question of photography as a task of how to evade all the petty hindrances and obstacles that seem to haunt

such places.

It will then be hardly necessary to point out the difficulty of making use of a stand camera. A hand camera of the magazine variety is the thing; it is always ready, and this is one of the secrets of success, for when anything good does come along it generally happens quickly. Often after waiting the whole afternoon a series of beautiful studies will be produced as a result of the movements of a single boat, more picturesque than the others, and as it glides along, picture after picture passes in front of the camera in rapid succession.

Use fairly rapid plates, for when the daylight begins to fade all things begin to take a more poetic phase, and the twilight will often be found the picturesque time of the whole day; given a good lens and a rapid plate it is quite possible to work to a late hour without under-exposing.

It is a great mistake to suppose that the 'seaside is always equally picturesque. There are special days of greater beauty than the average; even a wet day may be "fine" from a photographic point of view, the atmosphere more noticeable, a general softness given to all things, detail muffled, and

broad planes of light and shade noticeable.

Focussing is indispensable in harbour work; by its aid we can pick out any particular plane to make into a prominent feature of our picture, and at the same time throw out of focus and subdue other planes to take a secondary place. In order to gain full advantage of a picture made by focussing, it is always advisable to use as large an aperture as possible, with a shutter speed adapted to the amount of daylight and movement that is taking place.

It is often advisable to work from a small boat; a low standpoint is frequently an advantage, as it gives a grander appearance to shipping, and, best of all reasons, the boat enables us to get away from

the beaten track.

To obtain a correct rendering of a sky and sea, together with dark sails and shipping, will be found quite an interesting study. It is almost impossible to print in a sky to a sea picture correctly. Those who attempt this give us some very weird effects, and often forget that a sky is always reflected in the water, and therefore the sky and the seascape should be obtained on the same plate with the same exposure.

Among the prettier features of harbour pictures are the reflections in the water. At times these are quite grotesque. A mast reflection may look like a waggling snake, while a mass of sails and ropes gives a reflection similar to the markings on marble. Characteristic figures are often found lounging about. Their apparel, designed for use only, often has an artistic appearance. All the implements used to catch fish are also equally picturesque. Figs. 10-11.

The Photography of Objects on the Beach.

By J. H. CRABTREE.

OR the work we have in view a stand camera will not only be convenient but generally a necessity. The ordinary fixed-focus hand camera may be adequate for rocks, sand cliffs, boulders, spray lines and breaking waves, but for subjects within a few feet of the lens it is quite

unsuitable. The camera for all-round work on shore must be provided with a double-extension body, a lens of fairly short focus, a reversible back, swing back or front, sliding and rising front, and when set up on the tripod, must be absolutely firm so asto with stand heavy winds. The lens should be carefully protected by a shade as the light-glare and reflection from the sand are somewhat trouble-some. The lens should also be capped when not actually in use; the spray and shifting sand will soon work damage if this simple precaution be disregarded. If the shutter be affixed outside the lens this capping will be obviated.

The Focussing Cloth. The ordinary cloth is too small, too flimsy, and too permeable. For shore work it should be large enough to well cover the camera and the photographer's head and shoulders. Two thicknesses of black velvet are advisable, to keep the strong light severely away from the focusing screen. Again, the cloth should be well secured to the front of the camera. I divide the front of the cloth into five unequal parts and attach two hooks on one side which are to engage two eyes on the other side. When the winds blow strongly my cloth suffers no displacement whatever. It is a very simple matter, after exposure, to wrap the whole camera in this cloth and thus shield it from sand, spray and dust. Spray and sand are our greatest adversaries on shore and we examine the lens-front before every exposure to

make sure of its being unspotted.



F. C. Lambert.

T.



C. B. Alexande

THE PHOTOGRAPHY OF OBJECTS ON THE BEACH.

The ordinary tripod must be super-The Tripod. seded by one especially adapted to the work under consideration. If the tripod we already use has telescopic limbs, we can adapt it by making a small addition such as the one I have had in use for several years past. I found the tripod with sliding limb quite useless; the telescopic type was much better, but still insufficient for photographing shells on shore, star-fish, sea-weeds, water-marks, mussel and cockle beds, &c. I desired to get as large a view of my subject as possible and wanted the lens to be within a few inches of the sand. A hinged base-board appeared to be a solution of the difficulty. This was soon made with common tools and I can now place my lens within six inches of any shell, weed or any other shore object. Figs. 40-41. The baseboard consists of two flat pieces of wood hinged together; the lower piece is provided with a screw-hole for attachment to the tripod, the upper piece is perforated with a hole through which the camera-screw passes and the camera can be tilted at any angle desired. To ensure firmness I have side stays between the two pieces, and a string with hook suspended from the upper piece. When the tilt approaches 75° I attach my camera-bag to this hook and the rigidity of the apparatus is complete. Fig. 37.

For photographing with the lens pointing vertically downwards I have made a right-angle from two strong pieces of wood. One arm of the angle is clamped to the tripod top, the camera is screwed to the other arm. By this simple means, "vertical" work is easily done, fig. 38. If the looseness of the sand present any difficulty, procure three stones as flat as possible and rest the tripod-tips on these; or provide three wooden squares to serve the same

purpose.

Plates. As light by the shore is extra actinic, fast plates are unnecessary; and as shore items are generally stationary, slow plates have a decided advantage, having a fine grain and yielding a maximum amount of detail. This is just the goal we should strive for. Special care should be taken of the plate-holders, otherwise sand will creep in and spoil our best efforts. It is really surprising what

a number of pin-holes appear on developed plates unless we are careful to dust out the dark slides well before inserting the plates. Each holder should then be enclosed in a covering jacket of blanket cloth, velvet or leather. It is preferable to use backed plates in every instance; there are many reflecting points abroad which can do Plates should be removed from the mischief. slides after each day's work and inserted in plate boxes, not face to face unless they are brushed over with a soft camel-hair brush before insertion. The particles of sand appear to adhere more particularly to the gelatine side of a plate, and any slight movement of one plate-face on another creates ugly markings on both plates. I find it much better to use Negative Tissue-paper, placing one slip between each pair of plates; there is then no grating and no marking.

Subjects.—These are as numerous as they are interesting. We may include sand-dunes, shells lying in the sand, star fishes, molluscs on piers and groynes, sea-weeds, shore-plants, shipwrecks and wreckage, sand-cliffs, rocks, detached blocks, caverns, sea-birds' nests, sea-meadows running off the shore, etc. Several of these items call for

specific methods of treatment.

Sand-dunes.—These are usually effective when photographed at the opportune time. This must be when the sun is low and the shadows are well defined. The point of view should command a number of irregular furrows; the stunted grass should be well brought out and the dunes should be crested with a suitable cloudscape. The clouds may be printed from a separate negative, but must be lighted from the same direction as the dunes. Figures, as a rule, should not be included with sand-dunes.

Cliffs and Caverns.—Do not be over-daring with these subjects. It is absolutely unnecessary to run any risk of accident; and where a suitable point of view cannot be obtained it is better to retire than to break a limb. Safety first—photography afterwards. Avoid "flatness of field" in treating cliffs; set the camera at an angle of about 60° with the cliff-face and secure the shadow lines so as to throw

THE PHOTOGRAPHY OF OBJECTS ON THE BEACH.

out the points of rock into bold relief. Backed plates are here a sine quâ non, if any portion of the

sky is to be included.

Shells.—If on the sand, or among the rocks, the camera tripod should be lowered to its first sections and the hinged base-board used. A further advantage may be secured by affixing a supplementary lens of the "wide-angle" type to the ordinary lensmount. We then obtain an image nearly as large as the shells to be photographed. For conchological purposes this is valuable. Figs. 40-41.

Where the shells are adherent to high groynes the tripod must be extended. The tips should be placed on three stones or flat pieces of wood to prevent their sinking in the sand. If the shells appear very minute on the focusing screen, attach a "tele-photo" supplementary lens on the lens mount.

Wrecks and Wreckage.— Nothing on shore is more striking than the castaways of the ocean. They always appeal to our inmost soul and to our tenderest sympathy—and rightly so. In applying the camera, therefore, to the hulk stranded on the sand, or to the wreckage littered on the beach, we should select the point of view which lends itself best to the idea we wish to represent in the photograph. An end view is preferable to a broad-side when possible; and a view taken at 30° with the direction of the ship is better than either.

Sea-Birds' Nests.—If not actually on shore, these are generally not far distant, and during the nesting season should have a special day. As these places are usually under reserve, permission should be obtained before venturing with a camera. This precaution may save much unnecessary trouble. A polite letter to the landlord or to the keeper is usually met with a generous response; trespass results in summary ejection. Verbum sat sapienti.

Where the birds' nests are among the rocks great care is necessary. Where the nests are those of the sea-gull, we have little difficulty when the permit is obtained. We should proceed as indicated under the heading "Shells"; we must use the three wooden squares on which to set the tripod, as the gullery is composed of soft peat several feet deep in which the tripod would sink if not well "footed."

River Photography.

By HARRY SELBY.



TVER photography is such a wide subject that it is impossible to do it justice in the limited space at our command. To make such an article complete it would be necessary to embrace every kind of stream, from the tiny brook to the giant Thames in its estuary. Our present object is to suggest to those whose

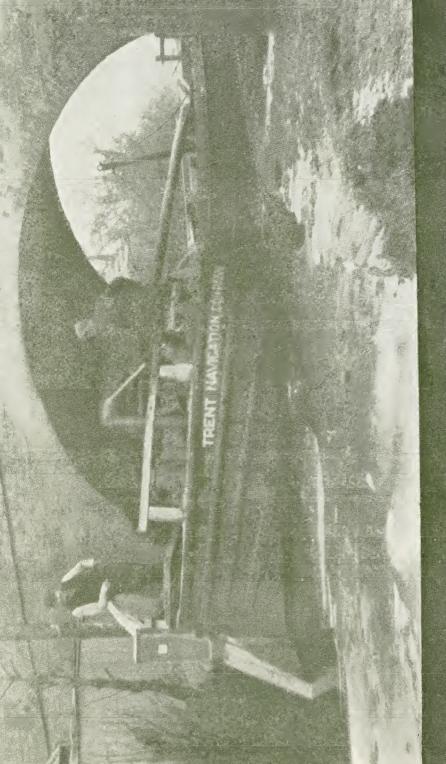
experience is limited a few types of river scenery which are pictorially valuable, even though at first sight they may appear in some cases to contain

somewhat unpromising material.

The Camera.—The hand camera is very useful in many branches, and in some is even necessary, but for all-round work a stand camera is obviously indispensable. It must be rigid and capable of long extension, e.g., not less than twelve inches for quarter-plate. A rising front is useful, and a swing back is in certain cases desirable. As to the size of camera, we would leave that to the individual taste of the worker, as much depends on his ultimate aims, i.e., whether he determines eventually to enlarge, etc. A camera of the "Panoram" shape is frequently useful, but is not recommended for all-round work.

Lenses.—For luxury we recommend three single lenses. For a quarter-plate size 6, 9 and 12 inches foci respectively are suitable. Expensive anastigmats are not required; the old-fashioned single lens is, in our opinion, superior. To those who can afford one lens only we may say that rectilinear lenses of the dividing type can be bought fairly cheap, and with them two or three foci can be obtained.

The Tripod must be rigid when fully extended; should be high enough to enable the image on the screen to be examined without cricking the neck; it should have sliding legs for uneven ground, or to enable the camera to be brought low down; and last, but not least, should have a head sufficiently large to hold the camera firmly in a strong wind.





Plates.—Whether plates or films be used is a matter of individual taste. Films are lighter, less liable to halation, generally speaking dearer, and in our opinion apt to deteriorate more quickly than plates, especially if not developed soon after exposure. If glass plates are used, they must be backed and must be colour-corrected (this, of course, applies equally to films), and therefore must be used with a coloured screen. Another very important point is that the emulsion must be rich in silver, or the gradation in the negative will surely suffer.

Rapidity.—The beginner should fight shy of extra rapid plates; and for open work with a stand camera a slow plate is, *ceteris paribus*, preferable. For dark scenes a higher rapidity is obviously an advantage, and when using a hand camera the highest rapidity is frequently necessary.

Exposure.—As in all other branches of photography this is the crux. When the subject is not much overshadowed by trees it is fairly simple with one of the modern actinometers to estimate the value of the light; but where the camera is much shaded this is not so easy, as the time taken to tint the paper to a sufficient depth is sometimes inconveniently long. But even then we may get a fairly correct estimate by the use of some of the devices whereby the result is attained in a different way. We refer to the various exposure tables in which the value of the light for every day of the year is given, and modifications made according to time of day and position of the camera. In one of these the exposure requisite for very shady places is given as somewhere about twenty-four times that required for open views with strong foreground. Doubtless a considerable amount of practice with one of these helps, if used with brains, will overcome all difficulties of exposure. Of course, allowance must be made for the coloured screen as well as for the other factors.

Season of year and time of day.—These depend largely on the effect required. Many beautiful effects are obtainable in winter under snow and frost, but these conditions are so seldom met with

in this country that we may confine ourselves to the mere mention of them. Apart from them, probably spring and autumn are the best seasons. The foliage is then not so heavy as to cause too much obstruction to the light, and the sun is not so vertical as it is in the summer. We must. however, not be led away by the colouring in these seasons, but must remember that ours is a monochrome process. As to the time of day, we consider an hour when the sun is low to be preferable. The early morning mist and the evening sky are factors of considerable value to the photographer of river scenery, notably in open work. The sun is apt to be a source of trouble when working under trees, specially after rain, as every leaf will reflect the sunlight and give a hard and spotty effect. Softness is such a valuable quality that anything militating against it should be avoided. So much is it so, that we strongly recommend the taking of our views under slight rain. An umbrella can be held over the camera to protect it. The question of the sky is all important. Let it be a blue sky with fleecy clouds, or a day on which the clouds are heavier but well defined—then the camera should be taken out. The clouds, of course, must be watched until their masses are in their proper position to suit the composition, and must not be taken just because they are clouds.

Types of River Scenery.—Here we are confronted with an embarras de richesses. There is one point upon which the photographer should take warning, or upon which perhaps he may console himself (it depends upon which way we look at it), viz.: No better pictorial work is done in beauty spots like Dovedale or the Dart Valley than in the humblest stream at our very doors. The Colne in the neighbourhood of Uxbridge and West Drayton, the Ouse in Huntingdonshire, the Lea in Hertfordshire, and many other rivers within easy reach of most of our great cities offer better scope for the artistic talent of the photographer, and are less likely to lead him into the path of mere prettiness, than those rivers where at every step there is a temptation to put up the camera. Moreover, amid scenes of great natural beauty the mental faculties are not so likely to be brought into play.

Small Streams.—Let us for a moment imagine ourselves on the bank of a small, unpretentious Here and there a tree hangs over its waters, perhaps a tumble-down wooden bridge or a broken fence breaks the line, the banks are covered with coarse grass interspersed with wild flowers and leaves of larger growth. In the distance is a low group of trees to break the horizon line. The sky is well broken with blue sky and cumulus clouds. What is to be done with such material? Put up the camera, affix a short-focus lens and examine the image. The size of the stream close at hand is exaggerated, and the bank in the foreground attains an importance out of all truthful proportion. The distant trees are mere specks. Put in a small stop and you will see everything nicely sharp all over, from the grass in the foreground to the extreme distance. This is all wrong. Try the longest focus lens at command, work downwards from the largest stop until the principal object is sharp, and let the remainder of the view be so slightly out of focus as to appear agreeably softened. The river with its foreground of grasses will not now monopolise the field of view—it will, or should, preponderate slightly, just sufficiently to justify its being considered a river view, but taking its place, with the tree in the back foreground, the distant group of trees and the sky, to make a harmonious whole, pre-supposing, of course, that the different parts are arranged in an artistic manner. We may with advantage introduce a few cattle, a fisherman with rod and basket, any figure in fact that is in keeping with the surroundings. But the figures must not appear to be put there to make a picture. Every part of the picture must have its raison d'être. With these limited and humble materials it is at once easy and difficult to succeed.

Large Rivers.—A big stream is not so easy to manage. So many beginners merely succeed in getting a huge blank space of water devoid of all interest. Lack of interest is fatal. He may recog-

nise this, and perhaps include a sailing boat. without the knowledge where to place it. He must remember that a river view must have something in it besides the river, or, to parody a well-known expression, we shall be unable to see the river for the water. A group of elms, a distant church tower, a village with its smoke rising, a background of hills. How shall we manage them? Look out for a slight eminence a short distance from the river, where the latter is well and distinctly seen. Hunt for a good foreground and then shift the camera about until the different components of the view are satisfactorily arranged, and duly subordinated to the river, and many of the difficulties will vanish. The hillock may not be at hand, but something will be found to break the monotony of the water. The hundred and one things that go to emphasize the foreground may be taken into service. If, however, no means can be found to satisfy the taste leave the view severely alone. Fig. 12.

Rapid Rivers.—Mountain torrents and moorland streams will be found very amenable, the latter especially with their moss and lichen-covered boulders. Dartmoor is a district that is particularly rich in the latter, and Scotland in the former type of stream. The background of the mountain torrent will be found wild and truculent, the moorland stream much tamer, possibly uninteresting. In case of poor backgrounds the sky line may be put very high in the picture and more picture space given to the stream. Fig. 13.

Estuaries.—I will merely refer, in the case of estuaries, to the Thames in its wider portions, giving a very wide meaning to the term. With a hand camera many charming effects of river, shipping and sky are obtainable from a steamer, but rapidity of execution and decision must be exercised.

Waterfalls.—These are generally disappointing. Try them when plenty of peat-stained water is running and so avoid harsh contrasts. Get a good pronounced foreground and take the fall slightly sideways and not a "full face" view. Fig. 17.

Composition.—This is practically identical in river work with what holds good in other branches.



Fig. 23 (p. 61).

DRYING PER SAILS.



Fig. 24 (p. 62). Sunsem in the Parbour.



Fig. 25 (p. 61).

A BAZY EVENING.



Fig. 26 (p. 61).

SUMMER SUNDOWN

Make the river the chief point of interest. All lines must lead up to it. A bridge, a church, or any other feature of interest must be subordinated. Atmosphere must be obtained by the avoidance of small stops. One side of the picture must not be unduly strong, or balance will be lost. Straight lines in a path by the side of a stream must be subdued by a change in the point of view or by breaking them up by skilfully chosen foregrounds. The sky, when the view demands one, must take part in the composition by the arrangement of its The mere fact of a broken sky being present in the view will not add pictorial beauty to Spottiness must be avoided as irritating to the eye. Carefully place the sky-line, in open work, either above or below the centre. These, and many other inviolable rules in composition may be profitably studied in some of the previous numbers of this series.* Above all, it will be found very helpful to study, not so much paintings, for the colour will be apt to monopolise the attention, but monochrome reproductions of the works of the great river painters. Note how the lines are arranged, how the lighting is managed, and above all how every feature is subordinated to the centre of interest.

Finally the worker at this branch of photography should remember that no stream, however humble, is beneath his notice, but that in and about it there is always ample material to please and gratify the eye that is capable of seeing beauty.

River Photography.

By R. W. COLE, B.A.

M

OST river scenes are pleasing to the eye, but it is very difficult to obtain good pictorial effects. The camera should never be pointed straight across to the opposite bank, for reasons explained in No. 16 of "The Practical Photographer." If pointed up or down the river from

the bank, a portion of ugly-looking foreshore will

^{*} No. 11, Landscape Photography and No. 16, Pictorial Composition.

probably be included. But advantage may sometimes be taken of a bend to get a good view. There is always a temptation to place the camera on a bridge, but the resulting picture will look unnatural on account of the great height. The best way of obtaining good river views is to take a punt out into the stream, and anchor it when in a good position. The camera is then set up, focussed, and the plate exposed, care being taken not to shake the punt. If the current is very slow, there is no occasion to anchor, or the punt may be pushed into weeds or rushes, when it will remain stationary.

Exposure. Special rapid plates should be used and a shutter speed of $\frac{1}{10}$ second when the camera is on dry land. When set up on a boat a speed of $\frac{1}{25}$ second is necessary, to allow for accidental vibration.

A Finder is a useful attachment to a stand camera, in case the punt should swing out of position. Bright sunlight is necessary if a sharp picture is desired.

It is a moot point whether river and lake scenes look best if the trees are bare or in foliage. If the latter, the photographic difficulties are increased. Willow trees look magnificent on the focusing screen, but will probably be unsatisfactory on development. One remedy is to take two negatives, a snapshot for the water, and a time exposure for the trees, and make a composite print. Trees which have well-broken masses of foliage usually come out successfully.

Calm Water. There should not be an absolute calm, or the water will come out very flat, especially if there are trees on the bank. If there are buildings on the shore, a perfectly still surface will give an unbroken reflection, which is not pleasing to the eye. A slight breeze, or ripples caused by shallows, will obviate this. The breeze should not be too stiff, for besides difficulties with the camera the surface of the water will be too rough to look pleasant. If the wind is variable, set up the camera, focus the picture, and wait until there are exactly the right ripples on the water.

Waterfalls and Weirs require an exposure of about $\frac{1}{50}$ second, but if the waterfall is over ten feet high the speed should ex-

ceed \(\frac{1}{90}\) second. When taking a mill stream, a speed of $\frac{1}{100}$ should be given if a sharp picture is desired. The same exposure should be given to torrential streams, but if sharpness of water is not desired longer time may be given. Streams flowing over rocky beds, and notably those of Devon, Wales and Scotland, look best if photographed when the surrounding trees are denuded of their leaves.

Figures and Boats.

introduced.

Ordinary views of rivers are much improved if a suitable figure or a rowing or sailing boat can be When the right kind of boat is at all likely to appear, it is best to set up the camera with finder attached, focus, and determine the best position for a boat to occupy. The slide is then inserted, and the photographer waits patiently until the right kind of boat appears. If the baseboard has been levelled, the camera can be swung round after the picture has been taken, a fresh plate inserted, and another view taken of the boat retreating, which is sometimes an advantage. A speed of about $\frac{1}{50}$ second is necessary for this kind of picture. When dealing with a rowing boat it is

The above notes and remarks apply to the photography of lakes. A view straight across a lake rarely looks well, but by taking a boat some distance out, or going to an island, views of the lake

best to wait until the end of a stroke, so as to

winding into the distance may be obtained.

The Camera on Board Ship. By JOHN EVERARD.

avoid blurring of the oar blades.

HIEF among the obstructions in the way of successful photography at sea is the movement of the vessel necessitating a rapid exposure, though the subject probably requires a "time" exposure.

Camera.—A tripod being little more than useless—unless the boat happens to be running

through smooth waters—the best cameras for use aboard-ship are those of the "hand or stand" pattern. The apparatus should be fitted with a rackwork focusing adjustment and a focusing scale. For long-focus work—and there will be plenty of it if the voyage is to be a long one, and the vessel to touch at many ports—the bellows-extension should be double the focal length of the lens.

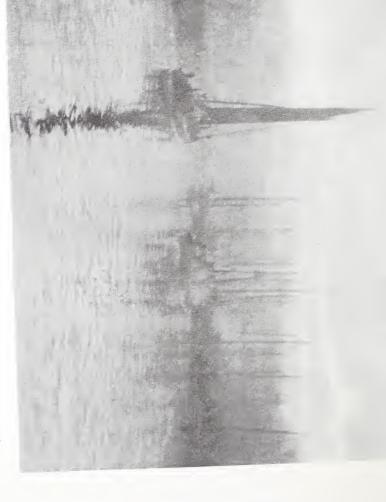
Lens.—A lens of average quality is quite suitable for "snap-shots" on board, e.g., of sports and sailor-life; but, as many interesting sights will be seen from the vessel, an instrument allowing the use of either the back or front combination of the lens is almost a necessity; for by using one of the combinations, and the bellows extended to double its normal length, a correspondingly enlarged representation of the distant objects will be obtained.

Plates or Films.—To a very large extent, longitude and latitude through which the vessel is to pass will determine the question of plates or films. If the voyage is to be a short one, and the tropics not entered, films may be used; but when the vessel is to "cross the line," where the atmosphere is in turn cold, warm, hot, and humid, I strongly recommend plates of medium rapidity. During the voyage both films and plates should be stored in a tin box, climatic variations having a very great effect on the sensitive emulsion of a plate or film. Celluloid films do not keep well in the tropics. Plates should be backed with a chemical backing—not paper.

Stops or Diaphragms.—When taking "snaps" aboard-ship, a large stop will be found most desirable. For "snapping" passing vessels, distant shore, etc., a small stop is a necessity.

Dark-room.—After "the first day out," the amateur should make friends (if possible) with the chief steward. The latter is a very important personage, and having most of the spare cupboards, cabins, etc., under his care, can, if he be so minded, provide a place in which the amateur may change his plates, and even do a little developing. Provid-





W. Foster Brigham.

ing they are approached in a proper manner, the officials on board are invariably very willing to do all they can for the comfort of amateur photographers.

Portraits.—To take a portrait with a blazing sun directly overhead is courting failure. To secure a successful exposure beneath an awning requires careful consideration. The only entirely satisfactory method is to use an actinometer. A few tests will enable the worker to gauge the exposure to a nicety. Do not get too close to the sitter: remember the rule—the nearer you get, the more lengthy the exposure. At a distance of 12 feet from the sitter, the lens working at f/8, and a medium plate of 90 H. and D., we may expect satisfactory results with $\frac{1}{10}$ th $-\frac{1}{20}$ th second's exposure. Rest the camera on the bulwarks, but pressed against the stays; or lean against some solid object and press the camera against the body, then gently release the shutter. In this class of work a shutter fitted with a ball-and-tube release is preferable to one having the ordinary spring trigger.

Passing Ships.—On a long voyage a ship passing within "speaking" distance causes quite a bubble of excitement, and, in consequence, is snapped by everyone possessing a camera. I have done it myself, and at the end of the voyage, when the plates were developed, have been terribly disappointed at finding the vessel represented by an almost-indistinguishable black spot on the waters. To the landsman at sea distances are very deceptive, so that it is quite easy to imagine oneself but half a mile from a vessel or the shore, whereas the object is probably two or three miles away; and the misjudgment is disastrous to good work. The very smallest amount of over-exposure is sufficient to blot out the distance. In this particular phase of photography on board ship make a practice of using a small stop—f/22, for instance. For many vessels and distant places, f/32 would not be too small.

Sports on Board.—To secure successful exposures of sports on board is possible only when the events

take place under the direct rays of the sun. I have tried—even in the tropics—to secure exposures of deck games being played beneath awnings, but up to the present have not succeeded in securing satisfactory results.

Shore Views.-When running close in to the land, or even when riding at anchor within a bay or harbour, it is always more or less difficult to obtain pleasing snap-shots of the shore. For the best work a telephoto-lens will be found most suitable, or failing this, the single combination of a good anastigmat used on a camera fitted with a double or triple extension bellows. Remember that when using the bellows extended to double its ordinary length and the single combination, the working aperture of the lens will be considerably altered—reduced, approximately, by one half: f/8 becoming f/16, etc. In this class of work be very careful of "atmosphere," especially where Islands are concerned. From a distance they often have the appearance of being shrouded in bluehaze, and although on approaching them much of this haziness disappears, a peculiar "atmosphere" still hangs over the towns and hills. haze affects the exposure considerably, and in such cases it is always better to err on the side of under, than over-exposure. With a plate of 75 H. and D., a lens working at f/11, and an exposure of inth second, I have had excellent results at a distance of two miles from the shore. A camera taking panoramic views is extremely useful, for in one film it is often possible to include the whole of the shipping, town, and distant hills. The danger, however, when using these cameras is, that unless the instrument be kept perfectly level during the exposure, the negative image will be greatly distorted.

Warning.—In conclusion, I would add a word or two by way of caution: the man with a camera aboard-ship can be more of a nuisance than the sometimes too-ubiquitous reporter ashore. So that unless he uses the instrument in a correct manner his fellow-passengers may make things very unpleasant for him.

Canal-side Photography.

By A. M. CLARKE.

ANALS may not at first glance seem to promise any special attractions for the "camera-ist." But that wrong impression is probably due to the tendency of the age to sacrifice everything to speed. Hence in many districts the canals or waterways for the purpose of

carriage have been greatly neglected during the last twenty or thirty years, and so have largely passed out of mind. Probably the reader has never realised that there are many scores—possibly several hundreds of miles of canals in England and the very fact that they have to some extent been deserted is a factor in the photographer's favour, because the bridges, locks, hythes and other features along their banks have been left alone and so escaped the prevailing tendency to replace wood and stone by hideous iron structures. Then again, perhaps the photographer in search of a subject near his home has not realised that in a very large number of towns the canals either pass through or go quite near them. Or, perhaps he may be familiar with the canal in the town, but has not realised that it does not begin and end there, but that it wanders this and that way-branches, and again branches, and so forms an immense net-work over vast areas of the country. Hence the canal bank scenery in one part differs considerably from that in another district.

Canal versus River.—True in a canal we do not get the same kind of variety that we do along a rapidly flowing river, but still its own variety exists all the same.

Variety of Subjects.—As to the subjects to be found along the course of a canal one may mention first the waterway itself with its curving lines, its over-hanging trees, now quite close—now in broken patches. The bridges again vary considerably, and by leaving the tow-path and branching off into occupation lanes some very charming and quaint

peeps may be found. The locks also vary very greatly and often can be utilised in picture-making.

Next comes the thought of the boats, which are usually towed by horses, but sometimes a sail may be seen. The vessels themselves vary in shape and size. Again, two similar boats will look very different according as they are high or low in the water—or according to what they are loaded with. Thus a load of hay gives a vastly different effect from a load of coal, bricks, timber, barrels, etc. The boat people are sometimes quite picturesque in their old weather-stained straw hats and corduroys. Moreover, from the fact that the rate of progress is usually very leisurely one has time to get fully-exposed pictures of groups of figures on board without rapid shutter speeds or very large lens apertures.

Of course, round about the loading stages there is a great variety of figure work to be done, though unfortunately these places are too often amid ugly buildings—factories and tall chimneys—to be quite to the pictorial photographer's liking. Figs. 27,

35, 36.

A Caution.—A tripod, of course, may be used, but in that case special care must be taken to place it on the side of the towing-path furthest away from the water when a horse and boat are approaching. For should the photographer be caught between the tow rope and the water it is extremely probable that he will find himself and camera in the water, and an ugly accident is very likely indeed. Of course, the same caution applies to the user of a hand camera. But in this case, as his head is not enveloped by the focusing cloth, he can see the trap, and so avoid it. The boat people as a rule are quiet, civil folk, and if approached in the right spirit will let one step on board when passing a A small donation will probably not be declined. From the boat one gets a rather different view of the scene, but the advantage so gained is not so great as perhaps one might imagine. It is, however, a pleasant, if slow way of returning home from a starting, often a tiring, tramp along the tow path.

Times and Seasons.—There is no best season of the year, for each season brings its own interesting



Fig. 29 (p. 62).

_Фу Ф**у**н Сяза.

Fig 30 (p. 62).

оне end oh Rydal Wamer.

features. But as to time of day it is as well to avoid the hours just before or after mid-day, as the glare from the calm surface of the water seems to be more assertive than in the early morning or late afternoon hours.

As a general rule, the pictorial worker will avoid taking his picture when the surface of the water is dead calm, and will avail himself of the slight ripple made by an approaching or retreating boat. A day when there is a slight breeze blowing will disturb the surface of the water in a very acceptable manner. But with much wind we have the disadvantage of its disturbing the trees more than

we appreciate.

Side Issues.—Canal-side photography is the text of this discourse, and theoretically one should confine oneself to this topic. But we feel sure that any worker who takes to the towing path will soon find that there are pictures just off the beaten track. As he passes a farmstead, a group of cattle drinking at the water side will attract him, and then he will also wander off after them for another shot. He will find himself tempted to "have a look" along some little stream or weed-hidden ditch which joins the canal, and find all kinds of quaint rustic bits. But these side issues belong to another story.

Apparatus.—All things considered, a hand camera has the advantage over a tripod outfit. A word of caution is needed about the lens. The ordinary hand-camera lens is usually of too short focus for this work, and generally makes the near part of the stream too wide in comparison with its (probably equal) width fifty yards away. Exposures may be fairly rapid, because the sheet of water close at hand acts as a large reflector. But where thickly leaf-clad trees overhang the stream, it is an easy matter to be misled by their bright colours, and under-expose the plate.

Canals, like other water pictures, often show a good long range of light and shade contrast, and, therefore, care must be taken to expose sufficiently,

and not to carry development too far.

Pictorial Hints.—As a rule we do not get pleasing pictures from the top of a bridge, for it is too high up above water level. Also it is as well to avoid

places where the canal side is nearly straight, or we shall very likely get some ugly straight lines in our foreground where they are not wanted. Do not get too near the boats, or the result will be strong foreshortening, and the near end of the boat will look quite disproportionately large as compared with the further end. For the same reason, lenses of short focal length are to be avoided.

Photography in the Scottish Lakes.

By FREDERICK GRAVES.

F all places in the British Isles, to my mind, there are few, if any, to compare with the mid-lake district of the Scottish Highlands for picturesque possibilities: it would be difficult to find a country of hill, woodland, and water, where so much that is "photographically" pic-

turesque is to be found.

As a Centre I would advise some such place on Loch Lomond as Tarbet, or on the sea, Loch Long, as Arrochar; both these villages are most charming. Within easy walking reach of either (they are only about a mile apart, connecting the two lochs by a valley), there lies a land of incomparable beauty for the enthusiastic picture maker. One of the most charming little spots in this lake region is Rowardennan, at the foot of Ben Lomond; the hotel is small and quiet and almost primitive; moreover, it is off the regular track, as the road ends there and the steamer is the only means of reaching the place. Rowardennan should be better known and oftener visited by photographers, for there are few places where the combination of hill and moor, wood and lake and stream are more delightfully blended.

Other good centres are Inveraray on Loch Fyne, Callender in the Trossachs, and Inversnaid on Loch Lomond. I strongly advise the reader to select a centre and work the surrounding district from it. To the north of Loch Lomond is Glen Falloch, a grand district easily reached either by steamer or boat from Loch Lomond, or by the West Highland railway, which, leaving Loch Long at Arrochar and running onto Loch Lomond at Tarbet, follows the side of the latter lake to its head and then ascends Glen Falloch. Fig. 14.

Of the Types of Scenery one feels one must either say nothing or say too much, the mountain shapes are beautiful, the bays ever varying and full of pictorial bits, the pastures (often with sheep and Highland cattle), rich with foreground material, and the woods magnificent. One becomes almost confused at the abundance of mountain and forest, stream and torrent, glen and dale, shore and cliff, pine and pasture, cottage and croft.

The best of the months for the Highlands is, as a pretty safe rule, June, for not only do we then get a great number of brilliant days, hot sun and good cloud effect, but in June the nights are so light one can frequently see to read out of doors all night.

Weather.—One must be prepared for sudden storms, and provided with a good waterproof and boots, for sometimes the bogland, which is plentiful,

is very wet.

Camera.—I strongly advise a stand camera, then the worker can spend as much time as he likes in careful composition of his work, but a good hand camera is not to be despised in that land, and the resulting negatives can be sorted afterwards and the best enlarged.

Light.—It must be remembered that the actinic value of the summer light there is very considerable, and accordingly one must be sharp with exposure; one is tempted to grossly over-expose at

first in forgetfulness.

Plates.—I have used orthochromatic plates, without a screen, very largely in dealing with this scenery, and I do not think one can beat them for

the class of work.

Exposure.—With a rapid orthochromatic plate in June about midday, sunshine and open scenery, one may give one second exposure with f/32. This should be developed cautiously, with a developer containing plenty of water, and a soft delicate negative aimed at.

Lakeland Photography.

By A. WALKER.

AKELAND photography is very much like other landscape work, except that the change from a more or less flat to a somewhat hilly district is apt to make us greatly misjudge distances.

Distances.—Thus as we look at the

fells across the width of Windermere, Derwent, or Ullswater we are very apt to think the lake is very much narrower than it really is; consequently, if we are using a hand camera with the usual small-sized finder, we shall probably be terribly disappointed with the small size of the hills, which we thought looked very much nearer and higher than they appear in our negative. This deception is partly due to the fact that we are looking across an unbroken space of water, which has a very different effect from a patch of land broken up by hedges, trees, etc. It is also partly due to the clearness of the atmosphere which so often prevails in the summer months in these districts.

The Camera.—Seeing that the best part of the Lake district is get-at-able only on foot, it is advised that the camera should not exceed half-plate size; and, on account of the frequent need of lenses of long focus, a tripod is strongly recommended.

Plates.—Whether plates or films be used, they should certainly be of the colour-sensitive or orthochromatic order. For all-round work a ten-timesyellow screen is best, as in practically all our pictures the greens are of the greatest importance.

The Lens.—A lens of focal length not less than one and a half times the long side of the plate is the shortest focal length of any general use, and if the focal length be double the long side of the

plate it will be better still.

Exposure.—Although the lakes reflect light just as do all other sheets of water, yet, if we are working in a valley, it must be remembered that the hills are shutting out some of our side-light. The majority of lakeland negatives are under-exposed and over-developed.



Fig. 32 (p. 63'.

R. Marshall.

Surrounding Country.—As a matter of experience based on several holidays spent in the English Lake district, the writer feels that the most picturesque bits will be found around the smaller rather than the larger sheets of water, and that the best hunting grounds are where some mountain stream joins a lake. Many of these "becks," as they are called, are well worth exploring; and although they are only quite small streamlets, yet here and there they open out into shady pools of much greater size than one might expect.

Variation Due to Seasons.—Most people only visit our English lakelands during the months of July, August, or September. But these districts are very well worth seeing in the spring, say May or June, and also when the first snow falls the effects

are often exquisitely beautiful.

Use of a Boat.—Many visitors are content to see the lakes from the shore only, and some even limit themselves to the regulation coach drives. But the best work will be found along the unfrequented footpaths, or obtainable only by hiring a boat and running it aground and fixing the tripod either in the boat or on the shingle beach upon which the keel is grounded.

Cattle Pictures.—Along many of the lakes are grazing meadows wherein the cattle are often grouped most charmingly. If the aid of a farmhand can be met with, one may get him to induce

the cattle to come down to the water edge.

Telephoto-work.—One need hardly say that a telephoto attachment will be found vastly useful, if not essential, where distant hills are being dealt with. But for strictly pictorial work the best effects will be obtained with a long-focus single lens.

Pictorial Hints.—For the most part these may best take the form of mentioning things to avoid. For example, avoid pictures showing charming "peeps" of the lake seen through foreground trees. To expose sufficiently for the trees is to over-expose for the light-reflecting patch of water, or to expose for the lake is to greatly under-expose for the trees.

As a rule distant scenery is not much use for photographic picture making. In other words the most important part of the picture is within two or

three hundred yards of the camera. One need hardly repeat that lakes, like other large sheets of water, act as light reflectors, and so shorten exposures as compared with similar pictures, but without the water.

Danger of Monotony.—As a matter of fact there is a good deal of similarity about pictures of lakes when the water occupies the chief part of the picture. But if it be relegated to a position or quantity of secondary importance, we shall get, not only a very much wider range of subject, but also pictures of a very much more interesting and pictorial nature.

One should remember the well-known saying of an old painter, "Pictures that are all water are very uninteresting, and pictures without any water

are seldom satisfactory.'

It certainly is true that a little water, a bit of a lake, bend of a river, glimpse of the sea, etc., very often just makes all the difference between the

pictorial and the commonplace.

Glens.—The subject of glen photography perhaps belongs to woodland work rather than to waterscape scenery. But as many glens and ravines have a stream or waterfall passing along them, a word may now be permitted. In glens we have two chief difficulties to contend with, viz., the loss of light due to overhanging trees, rocks, etc., and the limit-of-view point due to the obvious nature of the place. It is not a bad hint for the beginner to give about double the exposure in a glen that he would give in an equally leafy place in a wood; or let him reckon the sum total of the tiny bits of sky seen through the trees as a window, and regard it as an interior with large or small windows, according as the sky patches are many or few, large or small. As a rule it is better to select your view looking up than down a glen.

Common Mistakes.—The chief mistake with most lake-scenery photographs is either that there is far too much importance and space given to the water part, or that the photographer has included far too much (distant) subject on an insignificantly small scale, with the result that his hills, which may be two or three thousand feet high, look more like a

few mole-hills in the distance.

Hints on Photographing Waterfalls. *

By G. A. FOWKES.

W

ATERFALLS are very beautiful in nature, but are somewhat difficult things to photograph. As a rule the water either comes out with the appearance of ice or of cotton-wool, due to under-exposure, over-development, or both faults combined.

To ensure obtaining the best results it is essential that a backed plate should be used, and that sufficient exposure should be given to suggest the movement of the water. The exposure should be over rather than under timed, for it generally happens that there are dark rocks or heavy trees in the subject, and if these are under-exposed a hard, black-and-white effect is likely to result.

The lighting of these subjects should be carefully studied, so that there are not a number of high-lights scattered all over the picture. For the same reason, if there are a number of falls close together, it is better not to economise plates by getting them all on one negative.

A lens of somewhat long focus will be found most suitable; and the principal object should be rather sharply focussed.

It is not advisable to take waterfalls from a position directly in front of them, as in this case the idea of movement is lost and the water appears solid. It is better to photograph them, wherever possible, from the side, and thus secure an unbroken curve. Fig. 16.

In development, a dilute developer or a shorter factor than usual, if one prefers the time system, should be used to obtain a soft negative. If it is then found that the principal high-light is not strong enough it may be accentuated by the use of matt varnish on the glass side of the negative, or by the working-up with a stump on a piece of papier-minérale, as described in No. 7 of this series.

^{*} See also pp. 40, 43, 56.

Waterfalls.—It is a great mistake to suppose that the biggest or highest fall will make the best picture. On the contrary, such big things as Niagara do not yield such picturesque results as some trickling beck or burn down the hillside. As a rule the more the water is broken up and thrown in various directions the better the picture. Onc long, unbroken stream is seldom pictorial. The three things which in nature impress us are the noise of the rushing water, its movement and its size. And as our photographs cannot give any of these literally, we can only hope to get a pleasing result by paying attention to form, light and shade. Whether the object in nature be sixty or six feet, we can only give it about three inches on our quarter-plate negative. W.G.

Fountains, as a rule, do not make very satisfactory pictures, because, unless the wind is blowing the water to one side or other, the general form is apt to be somewhat stiff and symmetrical. A slight wind is also a help in softening the outlines

of the fall.

When possible it is desirable to select such a position that the uprising water is seen against some moderately dark object, e.g., building, tree,

or dark cloud.

The beginner makes the mistake of thinking that he must needs work the shutter at a very high speed. If he does this, he will find that the water has lost its life and movement and looks more like ice or marble. A fifteenth or twentieth of a second is amply quick enough at ten yards distance.

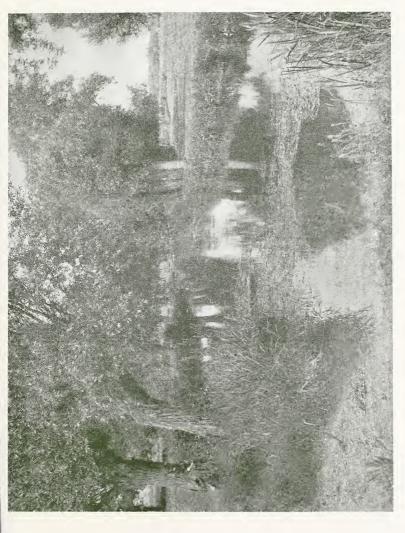
W.G.

Notes on some of the Illustrations.

Fig. 9. "On the North-East Coast."—Here we have a very fairly typical example of English cliff and shore scenery. The general arrangement of the clouds is in pleasing harmony with the general form of the composition. The author has been fortunate in avoiding the usual unsatisfactory scattered effect of pieces of rock in the foreground. The student should notice this rock grouping and

Fig. 33 (p. 63).

Gather ye rose-buds
while ye may,
Old Time is still
a-fiying;
And this same flower
that smiles to-day
To-morrow will be
a-dying,



store up the hint. It is an agreeable relief to have a picture of this kind without figures or boats. The outline (skyline) along the top of the cliff comes just a little too harshly and sharply defined in the original print. We hope our reproduction will aid us here by slightly softening this feature. The distribution of light and shade is broad

without being flat or at all monotonous.

Fig. 10. "The Lighthouse."—In this picture we have an admirable example of the great importance of light and shade. The grouping of the dark sails against the light building beyond is a striking and effective arrangement. The student should be careful to note how the white building "tells" effectively against the delicate tone of the sky. If we have a word to say in criticism it is that we should have preferred just a little more quiet space round the various objects of interest, in other words we have a half-defined fancy that the boat seems a little too large for the picture space. The broad massing of the darks should be noted.

Fig. 11. "A Study of Reflections."—This interesting study among other things well serves to draw the attention of the student to what he is very apt to overlook, viz., reflections. In passing we may once again urge him to be careful in distinguishing between shadows and reflections. two entirely different things though often confused. He will hardly fail to notice that the author has cut away a large part of the upper portion of the scene, and very properly given due prominence to those curious and fascinating cork-screwy, snaky lines of light and dark. The two figures, though occupying a subordinate position in the composition, serve a very useful purpose in connecting the two nearmost boats, and also help us to realise the scale of the picture.

Fig. 12. "The Thames at Isleworth."—We may regard a river in this phase as the extreme opposite of that where its waters come leaping and dashing down some rock-choked ravine. Between these two we can imagine an almost infinite variety of types and phases, each having its own peculiar charm and character. A river has often been compared to a human life, commencing as a little

impetuous leaping rill and finally ending in placid old age. The picture here before us seems to betoken the evening calm of an industrious life, quietly passing on its way to the all-absorbing

ocean of the Great Beyond.

Fig. 13. "The Sligachan River."—This is a fairly typical bit of river scenery which blends the leaping dashing mountain torrent with the kind of surroundings which the river itself seems to suggest. It is also a scene which makes us long for a truthful transcript of nature's colours. For here one can in imagination call up some of the yellow greens and red browns of the lichen patches on the boulders. We are disposed to quarrel with the author in this instance for allowing the modern young man to stand and to stare at the camera. The scene is one of great natural beauty, suggestive of hoary ages of the past, with rugged strength and largeness that takes no account of insignificant mortals.

Fig. 14. "Loch Lomond."—By common consent the lakelands of our country are admitted to present the greatest variety of upland and water scenery. This picture gives one a very good idea of this type of picture. There is a notion abroad that it always rains in the lake country. This is quite a libel which should be freely negatived, as doubtless it has prevented many would-be picture makers with the camera from visiting some of the most pictorial districts in Great Britain. The picture now before us well illustrates the way in which distance across water is apt to mislead. It also shows the very formidable difficulty of giving a sufficient exposure to dark tree trunks in the foreground, and at the same time retaining the distance and clouds.

Fig. 15. "Killin."—This example combines several good and undesirable features. The author sent us a print with a white margin which made the snow cap of the distant hill look quite dirty by comparison. The sky and distance are excellently treated. The trees come just a shade too dark. The weak feature of the composition is the cut-up and scattered effect of the river, due to a lot of detached rocks. This type of river is one very frequently met with in hilly districts, and when pictorial effect is desired one should spare no pains

to find such a view point that these patches of rock are grouped together as far as possible. This may often be done, either by lowering the camera to, say, three feet above water level, or by moving

a trifle to one side or the other.

Fig. 16. "Thomason Foss."—Just at first one may not realise that this is the name, not of a person, but of a waterfall of some repute. In this instance we have what we might call a one-leap fall. This type is not quite so easy to manage as the fall which comes down with several small jumps. The technical quality of the original is noteworthy, and the suggestion of moving water is perhaps as good as any non-moving representation can give us. Here, as in all cases of depicted movement, there must be a blending of convention and appeal to the imagination based on memory. Representations of waterfalls must always—of necessity contain some elements of disappointment, in as much as the fascination of the noise of the rushing water and the impressiveness of size are both absent.

Fig. 17. "Mill Ghyll Foss."—Note that in this instance we have a fall where the water comes down in a series of step-like jumps. This lends itself better to pictorial treatment than does the one leap fall. The point of view in this case has been chosen with considerable taste, as we may see by the grouping of the rock masses at the foot of the fall, which also serve to vary the line of chief light and give interest to the lower part of the

picture.

Fig. 18. "Down from the Hills."—Among the many delightful features of the hilly districts of Great Britain we must certainly include the mountain streams. Each seems to have a character of its own, and its moods vary from day to day and hour to hour. The title suggests the bounding, leaping water coming "down from the hills" a few hours after heavy rain. It is interesting in this instance to record the fact that the original print is by the Ozotype process, which has given just the exact degree of softness that the subject requires. The author made a grave mistake in surrounding his print with a narrow white border: this we omit, as it tends to degrade the tone value of high-

lights by force of contrast. The student will here note the effectiveness of a conspicuously simple

composition.

"A Sparkling Waterfall."—In this Fig. 19. instance we have a slightly different type of fall as The original print errs compared with Fig. 17. slightly on the side of vigorous contrast of light and shade. This is probably due to the exposure being not quite sufficient, and then followed by the development being carried on just a trifle too far. While we usually require a touch of sparkle in pictures of this kind one should be very careful not to carry this brilliancy to the stage of hardness. For this reason it is well to use a quick-acting developer, such as metol and under, rather than over-develop, depending on a little after aid from intensification by some of the processes which enable us to remove the intensification, if it is found unsatisfactory*.

Fig. 20. "A Shady Pool."—This example is included to show the employment of a pinhole in place of a lens when taking a negative. If the original print be viewed at a distance of about 12 inches from the eye no blurring is detected beyond that due to a few restless leaves. It is suggested that the idea of a quietly flowing stream is better conveyed by this use of general softness of the picture than would be obtained with a lens which probably would show a very marked difference of

definition in the different planes.

Fig. 21. "The End of the Breakwater."—Here again is a useful example showing us that sometimes a sea piece very largely depends upon its accompanying sky and cloud for its effect. Let the reader imagine that we here had a quite plain, i.e., unclouded blank (not white) sky. It is easy to see that the result would have been very considerably weakened—in fact it would have been somewhat common place. But the rather angry sky and the somewhat quietly-vicious-looking wavelets dashing against the pier end forbode a stormy time. Our chief fault to find with this picture, as a whole, is the unsuitable flimsy, rather too green mount,

^{*}Vide The Practical Photographer, No. 7, After treatment of the Negative.



Fig. 35 (p. 64).

THE GANAL BRIDGE.

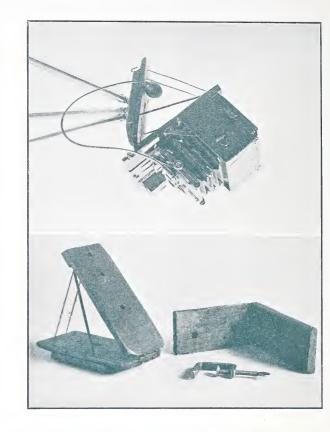
A. M. Clarke.



Fig. 36 (p. 64).

A. M. Clarke.

бне Цоск.



were laid on a piece of black velvet placed on the ground, and a supplementary short-focus lens used in conjunction with the usual lens. page 32. Figs. 40 and 41 show application of above apparatus. The objects Figs. 37 and 38 show apparatus for tilting the camera, as described on

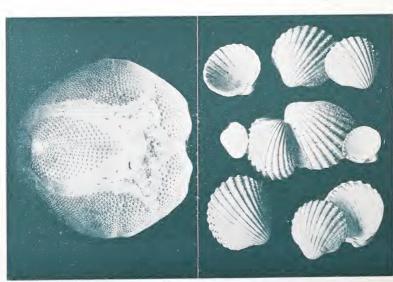


Fig 41 (p. 64.

J. H. Crabtree.

which, of course, is not shown in our reproduction. The other criticism is a regret that the horizon line should just coincide with the top line of the pier. This might have been avoided by lowering the camera.

Fig. 22. "The Canal Boat."—This is one of the most successful canal-side pictures that we have seen for quite a long time. The moment showing the boat and figures in this position is particularly Our only fault here is that the patch of sky showing through the archway of the bridge is just a little too suggestive of paper, and not quite enough of atmosphere. This print well shows that along the many miles of our English canal banks there is material for the making of pictures without end. The subject has not received the attention it deserves, and we hope to hear presently that some of our readers in search of unhackneyed photographic subjects have taken up the canal work as suggested on another page of this number.

Fig. 23. "Drying Her Sails."—The picture requires a little peep of sunshine to convey the idea of a sunny, breezy day. The arrangement is of a very simple character, yet contains enough, indeed rather more than enough, to afford a picture. It would have been better to have included rather less wall and got the boat on a little larger scale.

Fig. 24. "Sunset in the Harbour."—Had a colour sensitive plate been used probably a more luminous and harmonious effect would have been secured. The sky line of housetops and chimney pots is a little too sharply defined. A larger stop would have given a more generous exposure and softened this sharpness as well.

Fig. 25. "A Hazy Evening." Fig. 26. "Summer Sundown."—These two studies of a bit of Thames scenery, abundantly familiar to every Londoner, are included in order to show the great difference that the same river scene may exhibit according

to a different state of the weather.

In one case we have the air charged with a slight fog or haziness which softens the distance and adds greatly to the suggestion of space and general breadth of light and shade effect.

In the other instance we have a featureless, sober

sunset with a clear state of the atmosphere, which lends a somewhat commonplace work-a-day realism to the scene. The composition in this instance is

too symmetrical and scattered.

Fig. 27. "A Heavy Load."—This picture gives one a very fair idea of the kind of canal scenery obtainable within a very easy walk of many of the towns through which the canals pass. It also shows one of the difficulties of composition, viz., the somewhat exaggerated width of the near part of the canal. It is an agreeable suggestion of a summer

afternoon towards the hour of sundown.

Fig. 28. "Entering Port."—This is a particularly helpful and suggestive example, showing how pictorial treatment gives a poetic suggestion to what might easily have been a somewhat commonplace harbour snap-shot. We are sometimes asked by querists such questions as "What is the best way to get fuzzy pictorial pictures?" or "Is this sufficiently out of focus to be pictorial?" To these and all others one may repeat that pictorial quality does not depend on any degree of sharpness or softness, any more than artistic piano playing depends upon the loud or soft pedal. The art is in using one or other, or both, according as circumstances may require. In this instance the player has given us rather too much of the piano pedal and not quite enough of the forte one. In other words, the picture is rather too all over evenly softened; the nearmost boat might with advantage have been just a little sharper and more vigorous.

Fig. 29. "On the Cam."—A characteristic scene on that river which has a wider reputation than its size would here seem to justify, The stunted willows and other trees along its banks are highly characteristic of its general character. A light wind is urging the lazy pacing cumulus clouds, and causing the branches to nod acquaintance with their reflections in the creeping waters. This is an instance where a very large proportion of the charm of the original is due to colour, which our

reproduction does not convey or suggest.

Fig. 30. "The End of Rydal Water."—On another page it has been pointed out that one of the common mistakes in lake-land landscape with the camera is

NOTES ON SOME OF THE ILLUSTRATIONS.

that of attempting to include too great a proportion of water in the picture. It will here be seen that we get a better suggestion of the varied interest of this part of the country by including only a small part of the lake, and so allowing the imagination to have some room. As the landscape part is of chief interest, the sky portion has been kept quite simple, in the desire to convey the fading light of an autumn day.

- Fig. 31. "The Dimpling Ocean."—In this case we have an instance of the value of extreme simplicity. The study is designed to convey some suggestion of countless dimpling-smiles of the ceaseless waves, as the title (κυμάτων ἀνήριθμον γέλασμα) may be somewhat freely translated. In looking at the ever restless open sea we are apt to get only a very general notion of space, motion and colour, and seldom concentrating our thoughts on any quite small portion, or realising that each little bit is itself an "ocean within an ocean," and is built up of many little wavelets, each giving its smiling dimple response to the wind and the sun.
- Fig. 32. "A Busy Corner of the Docks."—The author may be congratulated upon having selected a very pleasing group of shipping, etc. The nautical painter sometimes makes grave errors, but fortunately for the photographer no nautical technical knowledge is required, so that he may give his whole and undivided attention to the pictorial side of the question. The general form and composition of this study is well worth very careful attention on the part of the student. Moreover, it shows that the river or harbour side photographer need not be always moving from place to place, day after day, for his material (i.e., ships, etc.) are constantly shifting their relative positions, so that the same standpoint may yield quite a series of studies, as interesting as they are different.
- Fig. 33. "Gather ye Rosebuds while ye may."—The two children gathering wild roses near one side of the picture form the basis of the title, but occupy a quite minor part in the composition, which is designed to convey the luxurious richness of summer verdure along a sluggish weed-choked stream. As

the chief interest here lies in the near part of the river and its banks, they have consequently received the larger share of attention, and been given the lion's share of the picture space.

- Fig. 34. "On Derwent Water."—A fairly characteristic scene in the English lakes. In a case of this kind, *i.e.*, where the water occupies an important part of the arrangement, it is desirable to guard against a large expanse of reflected skylight. Hence the advantage of selecting a somewhat windy and cloudy day, which disturbs the surface of the water. The on-coming clouds portend rain.
- Fig. 35. "The Canal Bridge."—This pleasant and characteristic rural bit suffers by reason of being on too small a scale, but it may well serve to show the varied scenery to be found along the canal side, as described on another page. The bridge comes rather too near the centre to make an entirely satisfactory composition.
- Fig. 36. "The Lock."—A fairly typical example of the buildings which are often found around junctions and locks. It also shows the omnipresent-telegraph pole which is apparently designed to increase the difficulties of the would-be pictorial photographer. It is only when we begin picture making that we realise what an enormous number of such things there are which we do not want.
- Fig. 40, 41. "Sea Urchins" and "Cockle Shells."—
 These are capital instances of familiar objects of
 the sea-shore which may be photographed and so
 made into lantern slides. They show us how blind
 many of us are; for we go "blundering along" on
 the look-out for "something to photograph," and
 at the same moment are crushing with our feet
 objects which are exquisitely beautiful in form. Of
 course, we are not all born naturalists, but a vast
 store of interest is lost to us for want of keeping
 our eyes open to see the things which are close
 at hand.

The reader may, in this connection, be reminded that in our Floral Photography volume, No. 19, there is a special section dealing with the photography of Seaweeds.



COMPLETE

HALF-PLATE SIZE

70/-

FOR OTHER SIZES

(\frac{1}{4}\text{-plate to }\frac{1}{2}\text{-plate})

See Catalogue, Post-free.

FOR THE AUGUST HOLIDAYS

THORNTON-DICKARD

"IMPERIAL" TRIPLE EXTENSION.

The Leading Low-Priced Set is fitted with:—
REAL LEATHER BELLOWS:

Spring Stretchers to both Back and Front, which they lock at right angles to the Baseboard. Erection practically automatic.

A Greater Range of movements than any Camera at a similar price.

 $\begin{tabular}{ll} \bf Specification.--Camera\,; & Brass & Turntable\,; & Beck \\ Symmetrical Lens with Iris Diaphragm $f/8$; Double Bookform Dark Slide with hinged division; & Three-fold Stand; \\ Thornton-Pickard & Time and Instantaneous Shutter with Speed Indicator. Camera fitted with Leather Bellows. \\ \end{tabular}$

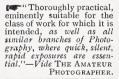
Full Descriptive Circular Post-free.

THORNTON-PICKARD CO., LTD., ALTRINCHAM.

THE . . .

BIRDLAND CAMERA..

A FOCAL PLANE REFLEX for ADVANCED WORKERS.



THE BIRDLAND BOOKLET

illustrated with Specimens of Work done with the Camera, post-free of the SOLE MAKERS.

NEW ACCESSORIES— THE BIRDLAND TRIPOD. THE BIRDLAND TILTING BOARD.

Sanders & Crowhurst, 71, Shaftesbury Avenue, LONDON, W.

WORKS: HOVE, SUSSEX.

Exposure Notes.

Fig. 9.—"On the North-East Coast." (Print Criticism Prize).

Aug., 2 p.m., Barnet Ortho. with 3-times filter, f/11, Exp. \frac{1}{8}-sec.

Fig. 10.—"The Lighthouse."

Sept., 7 p.m., yellow sunset, Imp. Plate, f/8, Exp. $\frac{1}{20}$ -sec.

Fig. 11.—"A Study of Reflections."

Aug., 3 p.m., bright, Warwick S.R., f/16, Exp. $\frac{1}{45}$ -sec. Fig. 12.—"The Thames at Isleworth."

Nov., 5 p.m., dull, f/11, single lens, Exp. 1 min.

Fig. 13.—"Sligachan River."

June, 10 a.m., bright, Imperial Slow, f/11, Exp. $\frac{1}{2}$ -sec. Fig. 14.—"Loch Lomond."

June, 4 p.m., brilliant sun, Barnet Ortho., f/20, Exp. 2 secs.

Fig. 15.—" Killin. (Print Criticism Prize). April, 11 a.m., bright light, Barnet Ortho., f/16, Exp. 1 sec. Fig. 16.—"Thomason Foss."

April, 11 a.m., diffused, Kodoid Plate, f/11, quick bulb exposure. Fig. 17.—"Mill Ghyll Foss."

Sept., 10 a.m., bright, slow film, f/11, Exp. 1 sec.

Fig. 18.—"Down from the Hills." (Champion Certificate). Sept., noon, diffused after rain, Hford Chromatic, f/16, Exp. 3 secs. Fig. 19.—"A Sparkling Waterfall." (Print Criticism Prize).

Fig. 20.—"A Shady Pool."

Aug., 3 p.m., bright, Rapid Plate, pinhole ¹/₅₀-inch 9 inches from plate, Exp. 3 min.

Fig. 21.—"The End of the Breakwater." (Print Criticism). Feb., 4 p.m., good evening light, Imperial Sp. Rap., f/11, Exp. ½ sec. Fig. 22.—"The Canal Boat." (Print Criticism Prize). Dec., 3 p.m., clear, Edwards' Iso., f/8, Exp. 2 secs.

Fig. 23.—"Drying Her Sails."

Aug., 10 a.m., Ord. Plate, f/16, Exp. $\frac{1}{16}$ -sec.

Fig. 24.—"Sunset in the Harbour.

Aug., 7 p.m., Ord. Plate, f/16, Exp. ¹/₁₀-sec. Fig. 25.—"A Hazy Evening."

June, 5 p.m., hazy, Ortho. Plate and six-times screen, f/8, Exp. ½-sec. Fig. 26.—"Summer Sundown."

June, 7 p.m., clear sunset, Ortho. Plate and six-times screen, f/6.8, Exp., $\frac{1}{4}$ -sec.

Fig. 27.—"A Heavy Load."

Aug., 6 p.m., diffused, Rapid Plate, f/16, Exp. 1-sec.

Fig. 28.—"Entering Port. (Junior Salon Certificate). Sept., 7 p.m., sunset, f/6, Exp. $\frac{1}{25}$ -sec.

Fig. 29.—"On the Cam.

Aug., 3 p.m., cloud and sun, Ord. Plate, f/16, Exp. 4-sec. Fig. 30.—"The End of Rydal Water."

Sept., 4 p.m., overcast, Rapid Plate, f/16, Exp. $\frac{1}{8}$ -sec. Fig. 31.—"The Dimpling Ocean."

Sept., 5 p.m., sun, Ord. Plate, f/11, Exp. $\frac{1}{40}$ -sec. Fig. 32.—"A Busy Corner of the Docks." (4th Jun. Salon Certificate). Mar., 3 p.m., sunshine and clouds, Ilford Ord., f/6, Exp. $\frac{1}{5}$ -sec.

Fig. 33.—"Gather ye Rosebuds while ye may."
Aug., 4 p.m., diffused, Ord. Plate, f/16, Exp. 4-sec.
Fig. 34.—"On Derwent Water."

Aug., 4 p.m., cloudy, Rapid Plate, f/11, Exp. $\frac{1}{25}$ -sec.

Fig. 35.—"The Canal Bridge."

Sept., 4 p.m., diffused light, Rapid Plate, f/16, Exp. 1-sec.

Fig. 36.—"The Lock."

Sept., 5 p.m., cloudy, Rapid Plate, f/16, Exp. $\frac{1}{20}$ -sec. Fig. 40.—"Cockle Shells," and Fig. 41.—"Sea Urchins." Sept., 3 p.m., dull, Imp. Sov., f/32, Exp. 5 secs.

The STAR

Hand

British Made. Guaranteed Quality. Latest Movements & Fittings.

Cameras.

VERY LOW PRICES.

New Revoli's Magic Photo-Tints.

Give your Photographs the Charm of Nature. Indelible Transparent Colours for Tinting Photographs, etc.

EASILY APPLIED.

GIVING CHARMING EFFECTS.

Price I/6 per Box.

Marion's

EXCELLENT QUALITY. EXTREME RAPIDITY.

"Isochromatic" Plates. POPULAR PRICES.

I/- per Dozen \(\frac{1}{4}\)-plates,

Etc.



MARION & CO., LTD.,

22 8 23. SOHO SQUARE, LONDON.

Kindly mention "The Practical Photographer,"

Messrs. Fallowfield (146, Charing Cross Road, W.) have drawn our attention to one of the most ingenious photographic inventions of the day. This is a tiny camera and developing apparatus combined measuring not more than four inches square. By four quite simple movements a plate is exposed, developed, fixed, etc., and handed to the operator in about two minutes. The camera complete with 45 prepared plates and adapter to fit on to any tripod costs only a guinea. It is daylight loading and takes a charge of 45 plates costing 2/-. The pictures are circular and suitable for putting in brooches. Suitable brooches are supplied at half-a-crown per dozen.

brooches. Suitable brooches are supplied at half-a-crown per dozen.

The apparatus is particularly well suited for "portraits while you wait" at garden parties, bazaars, etc., and as the cost of each picture works out at about a half-penny this apparatus may easily be made a source of profit as well as pleasure. Messrs. Fallowfield will send to any of our readers a neat little pamphlet which gives ample instructions, prices, and some reproductions of pictures made by this "Taquta Automatic Camera," as the apparatus is called. It is not easy to imagine anything more simple and expeditious than

the Taquta, and it only requires to be known to be appreciated.

From Messrs. Houghtons', Ltd. (High Holborn) we have received a plate draining rack which possesses several features of practical importance. The legs are of metal, and when fully open come to a dead stop at just the proper angle. The grooves for the plates are much wider apart than usual, and thus the plates dry more quickly and evenly without the risk of drying marks, which have puzzled not a few inexperienced workers. The lower edge of the wooden-grooved bar supporting the glass is chamfered away so that the water does not collect at this point, as it is likely to do in the familiar form of rack. The plate rests on a wooden (and not metal) bar—an obvious advantage. The whole thing is compact when closed, rigid when open, well made and phenomenally cheap at tenpence. The rack sent us holds a dozen plates and will serve for any size between lantern and 10×8.

Messrs. Penrose (109, Farringdon Road, E.C.) have sent us a trial package of Dr. Smith's multiple film colour plates and also a small descriptive pamphlet. This latter we have read with very great interest, and as soon as we are in possession of the various accessories for the using of these evidently very remarkable plates, we shall hope to try our prentice hand and report

results in these columns.

From Messrs. Zimmermann (10, St. Mary-at-Hill, E.C.) comes their up-to-date (1905) Guide to the use of the "Agfa" Photographic Preparations, e.g., Metol, Rodinal, Eikonogen, etc., Reducer, Intensifiers, etc., Isolar Plates, etc. This well-arranged and concisely worded booklet is one of the yearly issues that we have learnt to regard as indispensable, and as a matter of course this is at once put into its proper place on our reference shelf, so as to be within easy reach. Those of our readers who want to have the latest and most reliable information about the Agfa preparations should secure a copy instanter.

From the same film comes a neat little list of the Ernemann hand cameras, changing boxes, film pack adapters, stand cameras, light tripods and cinematograph apparatus for amateurs. These are all offered at very

tempting prices.

Also they send us a descriptive leaflet concerning the working of their entirely fascinating paper known as Crossed Swords Pigment Paper for direct printing without transfer, and cold development. We have in these columns already expressed our great admiration for this really splendid paper. The

more one uses it the better one likes it.

From Messrs. Aldis Brothers (Sparkhill, Birmingham) comes a compact and neatly got-up Price List giving ample information in well-arranged tabular form as regards their lenses. The name Aldis is such a solid pledge of the highest class of material and workmanship that those of our readers who are contemplating the luxury of another lens should certainly write to this firm for a copy of this catalogue (and mention The Practical Photographer in their application) when a copy will be sent to them post-free. This list contains numerous well-made illustrations showing what the Aldis lens will do, and also some of the machinery used in the making of these magnificent lenses.

Messrs. Burroughs & Wellcome have sent us a black japan tin case with hinged lid containing a pocket laboratory outfit for all sorts of photographic operations. Among them we have Pyro and also M.Q. developer; Hypo, Potassium Bromide, Gold Chloride, and Thiosulphate compound for toning P.O.P. One need hardly say that these preparations are in the world-renowned tabloid form. We understand that this Tabloid Photographic Outfit sells at Five Shillings. It is an ideal contrivance for the tourist.

Watson's New Reflex Focal Plane Camera...

THE RGUS

Elegant Design. Best Materials. Finest Workmanship.

A remarkable combination of portability & efficiency.



An Ideal Camera for Figure Work, Groups, &c.

Has Long Extension, so that large-sized figures can be obtained, and Reflex Focussing Finder, showing full-sized image.

No focussing cloth is necessary, the finder being thoroughly shaded by a long hood.

FOCAL PLANE SHUTTER gives Time Exposures of any duration, and Instantaneous from $\frac{1}{15}$ to $\frac{1}{1200}$ of a second. Speeds adjusted from the outside.

Write for Descriptive Price List (Dept. 1).

Watson's 'Holostigmat' Convertible Lens.

THE FINEST LENS for PORTRAITURE.

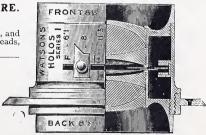
Offers the choice of three different foci.

The Single Components cover perfectly at f/11, and form ideal Lenses for Studies of Large Heads, etc.

SIR WM. de W. ABNEY says:

"It is a splendid Lens, and gives definition with the single lenses such as I did not expect, Of course, the double combination is very perfect."

DESCRIPTIVE PAMPHLET FREE (Dept. I.)



W. WATSON

313, HIGH HOLBORN, LONDON, W.C.

Branches: 16, Forrest Road, Edinburgh; 2, Easy Row, Birmingham.

THE PRACTICAL PHOTOGRAPHER.

Prints for Criticism and Floral Competitions.

Will competitors and others please kindly note our rule to the effect that when prints are to be returned stamp must be sent WITH THE PRINTS—not afterwards?

Will contributors to our various competitions kindly refrain from sending under one cover prints for different competitions? This not only gives us considerable trouble, but involves the risk of the various pictures not being properly entered for the competition for which they are intended. It is far better for all concerned to send each lot of prints in separate parcels.

- J. J. R. (Stockport).—You have evidently not studied our volume No. 4, or you would not use ink for writing the titles on your mounts. This little matter requires your very careful attention. 1. A graceful arrangement, and the blossoms are delicately rendered. The background is rather mottled, and this detracts from the general effect. Colour of outer part of mount rather too pronounced. 2. Two figures and boat too much "all in a row." Colour not very suitable for summer warmth. General technique excellent. 3. The weak part in this is the sky. In order to make the white-washed cottage tell out truly the sky should be somewhat lower in tone. You will get a good hint on this point from the Lighthouse picture in this number.
- A. L. M. (Leigh).—Careful technique and decidedly tasteful work is our general verdict. A. It was a mistake to cut off just the bottom edge of the vase holding the flowers, and the vase itself shows rather too much pattern, and so takes the eye away from the flowers, which are rather too many in number and crowded too close together. B. The narrow white line round the print is too assertive. (A is preferable in this respect.) You should have given us a little more stalk; the blossoms seem a little too large for the size of the picture. Blossoms are excellent. C. Vase too spotty and bottom again cut away. Background too dark, making too violent a contrast with the flowers. Do not use shiny or patterny vases, and avoid white or very dark backgrounds. Allow a little more space round flowers, i.e., do not trim so close.
- M. W. J. (Bristol).—As a broad and very general rule—with exceptions, of course—it is better to avoid a shiny surface where pictorial effect is of more importance than technical quality. All your three prints are technically above average, but not so strong on the pictorial side. (1) Blossom too low down on print, and too large for size of print. A white or very light vase with so dark a background is not good. (2) General arrangement of picture space the best of the three, but nearly all your "sitters" have their faces turned to the camera. Try to get the variety of nature in this respect. (3) This vase is very much nicer and more suitable than that in No.1. Quality of these blossoms quite excellent, but background too dark. Cover glass side of negative with matt varnish, and scrape away part over blossoms and leaves and print in the shade.
- T. I. P. (Trinidad).—Very interesting and fine specimens. The arrangement is too formal, too symmetrical, and you have included too many pines. One whole and one cut specimen would have been more effective. For this class of work an orthochromatic plate and colour filter is essential if good light-and-shade effects are wanted. Avoid very light or very dark table cover or background. Neutral tints are preferable, such, for example, as greyish-brown paper or a grey blanket. Give a liberal but not excessive exposure, and do not carry development quite so far as you seem to have done in this case. Aim at delicacy and softness rather than vigour or brilliancy. Always glad to help in any way we can.
- W. H. S. (Streatham).—You do not seem to have used orthochromatic plates, hence the somewhat unsatisfactory light-and-shade rendering of the colours. In one, for instance, the centres of the flowers come out much too dark relatively to the outer parts. Also you seem to have used a very light (i.e., too light) background, so that the blossoms do not tell out against this background. You are rather over-trimming (i.e., cutting away too much). A little quiet space round a flower is a great help. You are quite right in using quiet greys for your mounts. If the outer paper be first pasted down to stout card it gives the picture a much more finished and satisfactory appearance.

The Largest Circulation of any Photographic Journal in the World.

The Amateur EVERY TUESDAY, 2d. PROFUSELY ILLUSTRATED. On Art Paper. Photographer

The Only Journal which devotes special attention to Pictorial Photography, Practical and Elementary.

Articles by all the Best-Known Writers of the Day.

Send Post-Card for Free Specimen Copy and List of Good Books on Photography to London: HAZELL, WATSON & VINEY, Ld., 52, Long Acre.

Take an 'ADON' on Holiday Tour

and secure all those subjects which you have hitherto had to pass by because you could not render them on an adequate scale.

It brings distant objects near, and gives pleasing perspective in portraiture.

SEND FOR ILLUSTRATED BOOKLET No. 7.

J. H. Dallmeyer,

25, Newman Street, London, W.

AXE BRAND PHOTOGRAPHIC CHEMICALS, P.O.P. & BROMIDE PAPERS.

PINACHROM, PINAVERDOL



GOLDAXE. A Neutral Gold Toning and Fixing Salt, in Tins.
SOLARAXE. Backing Solution for Plates.

SOLE AGENTS FOR Hauff's AMIDOL, METOL, ORTOL, ADUROL, GLYCIN, Etc.

Developers.

Telegrams:
"FUERST,
LONDON.

FUERST BROTHERS, 17, PHILPOT LANE, LONDON, E.C.

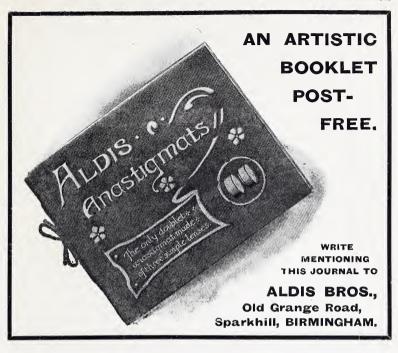
Telephone Nos. 1050 Avenue, 1053 Avenue and 5690 Central.

Kindly mention "The Practical Photographer."

THE PRACTICAL PHOTOGRAPHER.

- W. W. H. (Wimbledon).—1. This is the best of the three and generally very creditable. The sitter is rather too full face to the camera, an arrangement that may generally be avoided with advantage in flower work. 2. We do not like this style of mounting, and, speaking generally, it is desirable to avoid any white part of a mount being near a light blossom. The white paper takes all the life and light out of the flowers, as it does in the case before us. 3. Our previous note here applies to a narrow white band close to a dark background. This violent contrast takes the eye away from what otherwise is an excellent bit of plant photography. We strongly recommend you to study very carefully page 17 et seq. in our No. 4, which will put you on the right track and generally improve your work.
- J, W. (Golcar).—We may give you (and some other querists) the general hint that if you want your prints to stand their best chance in the monthly race you should mount them and spare no pains to select a very quiet and yet helpful mount (see No. 4 of present series). 2 and 3 are really quite excellent, and well above average quality; they fall off sadly in the matter of a sky, or rather white paper in the place of sky or cloud. The water is too white, too milk-like. You have evidently carried development too far, and so got a negative too strong in light and shade contrast. When the subject is already very strong in contrast, give a generous exposure and do not push development as far as the usual stage.
- O. L. H. (Maerdy, Glam.)—1. The best parts of this picture are the faces of the two children. The expressions are excellent. But your print generally is too black and white, i.e., too contrastful, due to your having over-developed your original negative, and then over-developed the print. Try again with a little more printing exposure and freely dilute the developer with at least an equal bulk of water. 2. Boys well grouped, but surroundings very ugly. Print requires white margin removing. Here again your print is too contrastful (see No. 1). 3. Quite a mistake to surround so pleasant a peep with a desert of distracting white paper. Try again with a cream tinted rough surface bromide paper (cream crayon, etc.) and print right out to the margins, and trim if necessary. See also reply as to mounting prints for competition. An ortho plate would have been a decided advantage if only you could have given a full exposure. But so many users of ortho plates do not get half their money's worth by under-exposing in most cases. You will find The Practical Photographer, No. 4, well worth reading nore than once. It contains a great deal more than most readers get out of it at one reading. Glad to help at any time.
- **E. C.** (Norwich).—The upper part of sky (cloud) just a little too dark, otherwise the sky part is excellent. The land part a little too black and white. Try a decidedly rough surface paper, *i.e.*, as rough as you can get. Print fully and develop at 120°F. but do not leave too long in the developer. 2. Tree comes too central, and narrow streaky white lines of land are rather distressing. You are evidently under-exposing and over-developing.
- **D. M. S.** (Cambridge).—Your fruit and flowers are better than your church interior. This last named is somewhat hard and chalky. It is very difficult to do any pictorial work with a sea of chairs like this. The only thing to do is to trim freely, You could spare another $\frac{1}{4}$ inch off the bottom. You have under-exposed and over-developed. Other two prints are of a very promising character, but you are overcrowding, i.e., putting two much matter into a small space. Try again and be content with one spray instead of half a dozen, and get your image about three-fourths life size. The work generally and the final turn out are in the right direction. Study the previous numbers on pictorial composition, viz., 11, 16, 19 and 22, and send us further examples.
- **H. S. B.** (Canterbury).—Both prints mark a good advance. The cathedral picture is your best up to date, and is quite charming. Could you get a little more suggestion of cloud? Try what you can do by patiently rubbing away the film of the negative with a bit of rag slightly moistened with methylated spirit. 2. The water cart picture also wants the sky part toning down considerably. This would come better in Matt P.O.P.
- J. H. (St. Helens).—Lupins. The P.O.P. print is very faulty, but we cannot guess the reason unless it be due to an acid mountant. Carbon print not plucky enough; P.O.P. is preferable in that respect. Iris.—Negative not contrastful enough for carbon process, which requires fairly plucky contrasts. Try this in Matt P.O.P., or better still in Platinotype. Your prints are evidently not doing proper justice to the negatives, which seem to be of a good technical quality.

xiv.



Sixpenny Editions by Popular Authors.

- 1. AULD LICHT IDYLLS
 By J. M. Barrie.
- 2. A WINDOW IN THRUMS
 By J. M. Barrie.
- 3. MY LADY NICOTINE
 By J. M. Barrie.
- 4. WHEN A MAN'S SINGLE By J. M. Barrie.
- 5. BESIDE THE BONNIE BRIER BUSH
- By Ian Maclaren.

 6. THE DAYS OF AULD
- LANG SYNE

 By Ian Maclaren.
- 7. KATE CARNEGIE

 By Ian Maclaren.
- 8. AFTERWARDS AND OTHER STORIES

 By Ian Maclaren.
- 9. BLACK ROCK

 By Ralph Connor.
- 10. CONCERNING ISABEL CARNABY
 - By Ellen Thorneycroft Fowler.

- 11. FUEL OF FIRE

 By Ellen Thorneycroft Fowler.
- 12. SIRIUS

 By Ellen Thorneycroft Fowler.
- 13. FÉO: A ROMANCE

 By Max Pemberton.
- 14. HER MAJESTY'S MINISTER By William Le Queux.
- 15. THE UNNAMED

 By William Le Queux.
- 16. DR. NIKOLA'S EXPERIMENT
- By Guy Boothby.

 17. WITH CHRIST AT SEA
- By Frank T. Bullen.
- 18. THE LAND O' THE LEAL By David Lyall.
- 19. NATURAL LAW IN THE SPIRITUAL WORLD

 By Professor Henry Drummond.
- 20. LETTERS ON LIFE
 By Claudius Clear (W. Robertson Nicoll.)

HODDER & STOUGHTON, 27, Paternoster Row, LONDON.

THE PRACTICAL PHOTOGRAPHER.

- J. R. S. (Edinburgh).—Your picture is an effort in quite the right direction, and is nearly being quite excellent. At present the general effect of the upper part is too liney—not eye-restful enough. This is nearly always the case with bare branches in the foreground against a light sky. When the trees are more or less leaf-clad, as in the case of the central tree, the effect is, as you will see, vastly different and preferable. You have rather too large a space of light on the water. Half this requires subduing. The nearmost part of the river bank should be darker than that ten or twenty yards away; but your print is inclined to reverse these values. As stamps were not sent for return of print we conclude you have a duplicate and do not want this back again.
- J. R. R. (Burnley).—A very good try at a difficult subject. You have gone very near scoring a success. The print is just a little too cold in colour for a warm sunlight effect, and the foreground is just a little unrestful by reason of the many small patches of light reflected by the leaves near our feet. We suggest your making a transparency, and getting a little more suggestion of detail in the extreme distance. Then on the positive a little careful and conservative retouching will subdue the majority of the small foreground high-lights. Then make a new negative from your revised positive, and aim at delicacy rather than brilliancy. Print in some slightly warm black medium, gum, carbon or toned bromide.

New Books.—(1) Photography made Easy, by "Camera"; 1/- net (Pitman). (2) How to Use a Camera, by Clive Holland; 1/- net (Routledge & Sons). (3) Frame Making, by Colonel W. L. Noverre; 1/- net. (4) Practical Gum-Bichromate, by J. Cruwys Richards; 2/6 net. (5) The Hand Camera, by W. L. F. Wastell and R. Child Bayley (Iliffe & Sons).

Numbers (1) and (2) on our list are both obviously designed as introductions or beginners' hand books. In each instance we find statements or advice which we should like to see revised or omitted. But on the whole they may be recommended as chattily written guides for those who desire to take their photography as a pleasant pastime without being concerned to do battle with its deeper problems. Numbers (3), (4) and (5) are perhaps not quite correctly described as new books, but rather as reprints of serial articles which have recently appeared. Doubtless there are many people who do not care to be troubled to collect and keep scattered chapters who will be glad to have the matter in this more convenient book form.

Post Scriptum. The following fragment is a small portion of the contents of *The Practical Photographer's Annual-Dictionary*.

PART I.

Aberration. Achromatism. Affiliation of Photographic Societies. Architectural Styles (how to distinguish). Astigmatism. Backing plates. Bottles, to clean and to cut. Blacking for inside camera. Brass, to lacquer, cleanse, stain. Bright negatives, how to obtain. Bromide paper hints. Bromide paper negatives. Brushes for various photographic purposes. Centring prints on the mount. Centre of lens. Changing lamp, to extemporise. Cleaning prints. Coins, to photograph. Coma. Conjugate foci. Contrast, control of in negatives. Copying, various hints. Copyright. Cork squeezer to make. Corks, to prevent losing, render air-tight, etc. Counting seconds. Covering power of lens for enlarging, etc. Cracked negatives, to print. Cuff protectors. Curvature of the field. Dark-Room Hints. Lamp, safelight for ortho plates, testing lamp. Dark slides, to examine. Development, factors, hints, judging image, etc. Dishes, to clean, to mend. Dissolving hypo quickly. Distortion. Dropping bottles. Drying plates quickly. Enlarging hints. Exhibition rules. Exposure, factors, hints, maxims, with pinhole. Factorial development. Films, to remove from glass. Filtering hints, folding papers. Flare. Flat contrasts. Focal length of lens, to ascertain. Focussing glass, to adjust. Focussing scale, to graduate, to test. Focussing screen, unbreakable, substitutes for. Funnel stand, to make. Gaslight printing hints. Ghost images. Ghost photography. Glass rods and tubes, to manipulate and make various useful articles. Glittering objects. Graduates. Ground glass, to make. Hand Camera, etc.

THE BEST PHOTOGRAPHIC LIBRARY THAT MONEY CAN BUY.

Practical Photographer

LIBRARY SERIES. Edited by the Rev. F. C. LAMBERT, M.A.
Published on the first of each month. Profusely Illustrated. Price 1/- nett.

- No. 1. BROMIDE PRINTING. Pictorial Work of A. Horsley Hinton. (Out of Print.)
- No. 2. BROMIDE ENLARGING. Pictorial Work of Colonel
 J. Gale. (Out of Print.)
- No. 3. LANTERN SLIDES. Pictorial Work of Will A. Cadby.
- No. 4. TITLES, MOUNTS, FRAMES, Etc. Pictorial Work of Alex. Keighley.
- No. 5. P.O.P. Pictorial Work of F. H. Evans.
- No. 6. DEVELOPING AND DEVELOPERS. Pictorial Work of Ernest R. Ashton. (Out of Print.)
- No. 7. AFTER-TREATMENT OF THE NEGATIVE. Pictorial Work of Robert Demachy.
- No. 8. HAND-CAMERA WORK. Pictorial Work of Frank M. Sutcliffe.
- No. 9. PLATINUM PRINTING. Pictorial Work of Charles Job.
- No. 10. SPECIAL HOLIDAY NUMBER.
- No. 11. LANDSCAPE PHOTOGRAPHY. Pictorial Work of Reginald Craigie.
- No. 12. ARCHITECTURAL PHOTOGRAPHY. Pictorial Work of Arthur Burchett.
- No. 13. THE CARBON PROCESS. Pictorial Work of J. Craig Annan.
- No. 14. RETOUCHING THE NEGATIVE. Pictorial Work of J. B. B. Wellington.
- No. 15. WINTER WORK. Pictorial Work of Henry Speyer.
- No. 16. PICTORIAL COMPOSITION. Pictorial Work of Bernard Alfieri.
- No. 17. ANIMAL PHOTOGRAPHY. Pictorial Work of Viscount Maitland.
- No. 18. GUM-BICHROMATE PRINTING. Pictorial Work of Charles Moss.
- No. 19. FLORAL PHOTOGRAPHY. Pictorial Work of Mrs. Cadby.
- No. 20. PORTRAITURE. Pictorial Work of Furley Lewis.
- No. 21. ORTHOCHROMATIC PHOTOGRAPHY (Simplified). Pictorial Work of Harold Baker.
- No. 22. FIGURE STUDIES, GROUPS AND GENRE. Pictorial Work of Wm. Rawlings.
- No. 23. SUMMER NUMBER. Pictorial Work of F. J. Mortimer, F.R.P.S.

Why Not

try some of Wratten's
'LONDON' PLATES
during your holidays? A
Descriptive List will be
sent to you post-free
upon application to the
Sole Makers:

WRATTEN & WAINWRIGHT, croydon.



For Sepia

For Redeveloping.

> OF ALL DEALERS, 1/=, 2/6, 5/=.

WELLS &

Southgate,

CROWN 8vo. CLOTH. 2/6

EACH VOLUME.

The Self-Educator Series. John Adams. M.A., B.Sc.,

Professor of Education in the University of London.

FRENCH

By John Adams, M.A., B.Sc.

GERMAN

By John Adams, M.A., B.Sc.

ENGLISH COMPOSITION By G. H. THORNTON, M.A.

ARITHMETIC & ALGEBRA
By John Davidson, M.A.

LATIN

By W. A. Edward, M.A.

BOTANY

By ROBERT S. WISHART, M.A. (With Numerous Illustrations).

DRAWING

By ROBERT Y. HOWIE, M.A., D.Sc. (With Numerous Illustrations).

CHEMISTRY

By John Knight, M.A., B.Sc. (Illustrated with Diagrams).

HODDER & STOUGHTON, 27, PATERNOSTER ROW, LONDON.

BEE METERS



"I have not had a bad negative since I began to use it."

Bee Meter 2/7 Queen Bee 10/6 Print Meter 5/-

Watkins Manual 1/2 Speed Card, 11d

The WATKINS Meter Co., Hereford

DR. SMITH'S NEW PATENT 3-COLOUR PLATE

A Multifilm Plate for 3-Colour Photography.
No colour-filter or special apparatus required.
The three negatives are taken with a single exposure in any ordinary camera and slide. Instantaneous exposures rendered practicable. Sole Agents in England: A. W. PENROSE & CO., 109, Farringdon Rd., London, E.C.

The Practical Photographer.

Edited by the REV. F. C. LAMBERT, M.A.

* * *

Rates for Advertisements.

	One Inser- tion		Three Inser- tions						Tw'lve Inser- tions			
	tion		Per Inser-			Per Inser-			Per Inser-			
Whole Page Facing Matter ½-page do. ¼-page do.		s. 0 15 10	0	£42	s. 15 12 8	d. 0 3	£	s. 10 9	d.	£ 4 2	5 6 5	d. 0 9 6
Whole Page Ord. Position ½-page do. ½-page do.	4 2 1	0 5 5	0 0	3 2 1	16 2 3		3 2 1	12 0 2		3 1 1	8 18 1	3 3

SPECIAL POSITIONS BY ARRANGEMENT.

₩ ₩ *****

HODDER & STOUGHTON.

Advertising Department, 27, PATERNOSTER Row, E.C.

xviii.

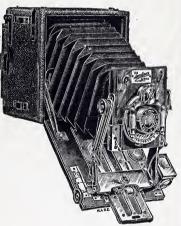
For Pictorial Photography you must have a "Sanderson."

Year in and year out the "Sanderson" Hand Camera maintains its supremacy. Other cameras appear, are advertised, and disappear into the oblivion of the back shelves or the sale and exchange columns. But the "Sanderson" is being made in ever-increasing numbers every year. No one ever wants to sell a "Sanderson," unless he is either going to buy another or give up the hobby altogether. We have written to dozens of people who have advertised "Sandersons" for sale, but in nine cases out of ten, the advertiser is going to buy another "Sanderson," a different size, perhaps, or a different pattern—but always another "Sanderson." The

tenor of the replies may be summed up in one short sentence, which we quote from a letter recently received from the editor of a well-known daily paper—

"I would rather give up photography than be without a 'Sanderson.'"

Have YOU realized yet that it is the shortcomings, the inconveniences of the ordinary camera that prevent your doing good work?



Are your pictures hung at the leading exhibitions? Do the editors of the photographic papers ask you to send them prints for reproduction? Is it not because you have to spend so much time over your camera that you cannot devote attention to all the little details that go to make a successful picture? Think it out. Settle with yourself whether your camera is not at fault. Then write for particulars of the "Sanderson," and the booklet—"An expensive hobby that costs nothing." It will teach you how the "Sanderson" pays for itself within two months, and it details the actual experiences of an amateur photographer who did it.

Houghtons Ltd., Makers of "Sandersons," 88/89, High Holborn, W.C.

"Sandersons" are sold by all dealers everywhere. Get the booklet.

The "Nature" Series of Mounts.

In 1/0 Packets.

Ordinary	To take sizes up to 4-p Thickness. Extra	To take sizes up to ½-plate. Ordinary Thickness. Extra Thick Series.						
Conta			ontains		Contai			ntains
No. shee			sheets	No.	sheets		No. s	
8×6			8×6 in.		10 × 8 i1			$\times 8 in.$
A 48	assorted colours	AO	32	В	36	assorted colours	B0	24
A1 48	grosvenor green	A01	32	B 1	36	grosvenor green	B01	24
A2 48	duffel gray	A02	32	B2	36	duffel gray	B02	24
A3 48	gray bark	A03	32	B 3	36	gray bark	B03	24
A4 48	playfield cream	A04	32	B4	36	playfield cream	B04	24
A5 48	rough white	A05	32	B 5	36	rough white	B05	24
A6 48	dove	A06	32	B6	36	dove	B06	24
A7 48	deep sea blue	A07	32	B7	36	deep sea blue	B07	24
A8 48	autumn brown	A08	32	B8	36	autumn brown	B08	24
A9 48	smoke gray	A09	32	B9	36	smoke gray	B09	24
A10 48	fern green	A010	32	B10		fern green	B010	24
A11 48	coffee	A011	32	B11		coffee	B011	24
A12 48	wine red	A012	32	B12		wine red	B012	24
A13 48	black	A013	32	B13		black	B013	24
A14 48	olive green	A014	32	B14	36	olive green	B014	24
A15 48	iron gray	AO15	32	B15	36	iron gray	B015	24
A16 48	russet	A016	32	B16	36	russet	B016	24
A17 48	slate	A017	32	B17	36	slate	B017	24
A18 48	drab	A018	32	B 18	36	drab	B018	24
A19 48	brown	AO19	32	B19	36	brown	B019	24
	To take sizes up to 1 -	loka		T				

To take sizes up to 1-plate.					To take sizes up to ‡-plate.						
								Extra Thick			
	Contain			Contains		Contair			Contains		
No.	sheets		No.	sheets	No.	sheets	S	No.	sheets		
	12×10		1	2×10in.		12 × 10	in.		12×10 in.		
C	24	assorted colours	CO	16	C10	24	fern green	C010	16		
C1	24	grosvenor green	C 01	16	C11	24	coffee	CO11	16		
C2	24	duffel gray	CO2	16	C12	24	wine red	C012	• 16		
C3	24	gray bark	C03	16	C13	24	black	C013	16		
C4	24	playfield cream	C04	16	C14	24	olive green	1 CO1 4	16		
C5	24	rough white	C05	16	C15	24	iron gray	CO15	16		
C6	24	dove	C06	16	C16	24	russet	CO16	16		
C7	24	deep sea blue	C07	16	C17	24	slate	CO17	16		
C8	24	autumn brown	C08	16	C18	24	drab	CO18	3 16		
C9	24	smoke gray	C09	16	C19	24	brown	CO19	16		

The Ordinary Papers are also supplied in large sheets (28×26 in.), price 2/6 per quire. The Extra Thick Papers are also supplied in large sheets (28×26 in.), at 3/6 per quire of 24 sheets.

'Nature' Cloth.

Five tints of coarsely woven cloth may now be had for mounting purposes, and are particularly effective with photographs of the broad school.

Price 1/- per yard, 30 inches wide, or 1/4 post-free on roller. 12 yards for 10/-.

COLOURS: -Buff, Gray Bark, Autumn Brown, Red and Green.

OF ALL DEALERS.

or of PERCY LUND, HUMPHRIES & CO., LTD., Bradford and London.





WONDER-FUL INSTRU-MENT **EVER**

PRICE

No hiding in the dark, and no light feared.

The "TAOUTA" holds 45 plates in a daylight magazine. and exposes and develops a perfect picture within two minutes.

ASK YOUR DEALER TO SHOW IT YOU.

Box, complete with Maga-zine containing 24 plates, Price of "TAQUTA," in Strong and including Stand Adapter

DETAIL LIST POST-FREE ON APPLICATION.

From all Chemists and Dealers, or post-free from

JONATHAN FALLOWFIELD

CENTRAL PHOTOGRAPHIC STORES. 146, CHARING CROSS ROAD, LONDON, W.

Telegrams: "Fallowfield, London."

Telephone: 4443 Central.

Wellington

S.F.P

The Popular GASLIGHT PAPER.

TRY
THE Portrait Matt

GRADES Portrait Glossy

Semi Matt

N.B.—If your Dealer does not happen to have it in stock, ask him to procure it, or, failing this, send to us direct, enclosing 6d. or 1/-, stating size required, and packet will be sent post-free.

WELLINGTON & WARD, ELSTREE, Herts.